ESSAYS
ON SEVERAL
Important Subjects
IN
PHILOSOPHY
AND
RELIGION.

By JOSEPH GLANVILL,
Chaplain in Ordinary to His Majesty, and
Fellow of the *R. S.*

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ESSAYS.

VIZ.

I. Against CONFIDENCE in PHILOSOPHY.

II. Of SCEPTICISM, and CERTAINTY.

III. MODERN IMPROVEMENTS of Knowledg.

IV. The USEFULNESS of PHILOSOPHY to THEOLOGY.

V. The Agreement of REASON, and RELIGION.

VI. Against SADDUCISM in the matter of WITCHCRAFT.

VII. ANTIFANATICK *Theologie*, and FREE *Philosophy*.

To the most Honourable

HENRY

Lord Marquess, and Earl of *Worcester*, Earl of *Glamorgan*;

Lord *HERBERT*

Of *Chepstow*, *Ragland*, and *Goure*,

Lord President of *Wales*,

Lord Lieutenant of the Counties of *Glocester*, *Hereford*, *Monmouth*, and *Bristol*;

Knight of the most Noble Order of the *Garter*,

And one of the Lords of His Majesties most Honourable Privy Council, *&c.*

MY LORD,

ALthough perhaps in strictness of judging there is somewhat of Impertinency in such Addresses, yet Custome hath obtain'd licence for us Writers *thus* to express our acknowledgments of favours, and to give publick testimonies to the Deserts of excellent Persons: Your Lordship affords me plenty of subject for both these, and I humbly crave your leave to use the Liberty that is granted

granted without censure on such occasions, to declare part of my resentments of them.

There is nothing more substantial, or valuable in Greatness, than the power it gives to oblige; for by doing benefits we in some measure are like to *Him*, who is the Lover of Men, and causeth his Sun to shine upon the good, and upon the evil: Nor doth God Himself glory in the absoluteness of his Power, and uncontroulableness of his Soveraign Will, as he doth in the displays of his Goodness: This, my Lord, is the right, and honourable use of that Greatness he is pleased to vouchsafe unto Men; and this is that which makes it amiable, and truly illustrious: Your Lordship knows *this*, and are as much by Nature as by Judgment, formed to live according to such measures: And I think there was never Person of your Lordship's rank, whose general fashion, and conversation was more suited to the sweetest and most obliging Rules of living: For besides that your natural Genius hath nothing haughty, or rough in it, nothing but what is *modest*, *gentle*, and *agreeable*, your Lordships whole deportment is so *affable*, and *condescending*, that the benignity of your temper seems to strive for superiority over the greatness of your quality, which yet it no

way

way *leſſens*, but *illuſtrates.* This is that which highly deſerves, and commands the love, and venerations of all that have the honour, and happineſs to know you: And you may juſtly challenge their devotion, and higheſt eſteem upon all other accounts that can give a great Perſon any title to them. For your immediate deſcent is from a long maſculine line of great Nobles, and you are a Remainder of the illuſtrious Blood of the PLANTAGENETS. What your Family hath deſerv'd from the *Crown*, the vaſt ſupplies afforded his late Majeſty by that *Loyal Marqueſs*, your Grand-Father, and the ſufferings of your Houſe for Him, do ſufficiently declare to the World: But your Lordſhip hath no need that Arguments of Honour, and reſpect ſhould be fetcht from your Progenitors; the higheſt are due to your perſonal Vertues, and that *way* of *living* whereby you give example to Men of quality, and ſhew, how Honour, and Intereſt is to be upheld. For you ſpend not your time, and Eſtate in the Vanities and Vices of the Town, but live *to* your Country, and *in* it, after a ſplendid, and moſt honourable Faſhion, obſerving the *Magnificence* and *Charity* of the ancient Nobility, with all the *Decency*, and *Improvements* of latter Times. And perhaps your

Lord-

Lordſhip's *way* is one of the beſt patterns the Age yields, of a *Regular greatneſs*, in which *grandeur* is without *vanity*; and *Nobleneſs* without *Luxury*, or *Intemperance*: Where we ſee a *vaſt* Family without *noiſe*, or *confuſion*; and the greateſt *plenty*, and *freedom*, without provocations to any *Debauchery*, or *Diſorder*. So that your Lordſhip's cares, and thoughts are not taken up with the little deſigns that uſually entertain idle, or vainly imployed Men, but in the Service of your King, and Country, and conduct of your Affairs, with prudence and generoſity; in which you not only ſerve the preſent Age, but provide for the future. And, my Lord, among the acknowledgments that are due to your Vertues, I cannot but obſerve the care you take for the conſtant, daily Worſhip of God in your Family, according to the *Proteſtant* Religion, profeſt by the *Church of England*, and the example your Lordſhip gives by your own attendance on it. This is the ſureſt Foundation of greatneſs, yea 'tis the Crown, and luſtre of it: And when all other magnificence is in the duſt, and is ſhrivel'd into nothing, or at the beſt, into a cold, and faint remembrance, the effects of this will ſtay by us, and be our happineſs for ever; And all other ſplendors, in compariſon, are but

like,

like the ſhining of rotten wood to the Glorys of the Sun,and Stars. This alſo is the beſt fence and ſecurity to our preſent comforts and injoyments, both in reſpect of that temperance and ſobriety it produceth, and chiefly on the account of the bleſſing of the Supream *Donor*, who hath made it the promiſes of *this* Life, as well as of *that which is to come*: And therefore the wickedneſs of thoſe that take Liberty from their Riches and worldly greatneſs, to defie God, and deſpiſe Religion, is as fooliſh and improvident, as 'tis monſtrous and unreaſonable: and thoſe brutiſh Men do not render themſelves more hateful for their impiety, than they are deſpicable for their folly. But I need not ſay this to your Lordſhip, who are ſenſible of the abſurdities, and malignity of this vice, and give not the leaſt countenance, or incouragement to it by your practice; being cautious to abſtain from all expreſſions, that grate on the Honour of God, as you are free from any that can give juſt offence unto Men: For your Lordſhip is none of thoſe that ſhoot the *arrows of bitter words*, and *ſet* their *mouths againſt the Heavens*; but your diſcourſe and converſation is adorn'd with that *modeſty* and *decency* that becomes a great Nobleman, and a good Chriſtian.

My Lord, I have not given you these few just acknowledgments, with design to gratifie or please your Lordship, I know I need your pardon for the trouble your modesty receives from them; but I have done it for the sake of *others*, because we live in an Age wherein there is scarcity of such examples. I know 'tis usually *indecent* to commend Persons to themselves; but the custome of Dedications will excuse this, which even *severity* and ill nature cannot impeach of flattery, or extravagance.

And as I owe this Testimony to the merits whereby you serve and oblige the Age, so I should acknowledg the Obligations your Lordship hath conferr'd on my self: but this will be a great duty, and business of my Life; for such empty expressions as these verbal ones, are very unsuitable returns for real and great favours; and if ever better acknowledgments are in my power, I shall still remember what I owe your Lordship.

I now most humbly present you with a *Collection* of some *Essays* upon subjects of importance. The design of them is to lay a foundation for a good habit of thoughts, both in *Philosophy*, and *Theology*. They were some of them written several years ago, and had trial

of

of the World in divers Editions: Now they come abroad together (with ſome things that are *new*) reduced to ſuch an Order, as is moſt agreeable to my preſent judgment. I could have added much upon ſuch fertile, and uſeful Arguments; but I am willing to believe, I have ſaid enough for the capable and ingenious, and I doubt too much for others. If your Lordſhip ſhall pardon their imperfections, and accept of the devotion where-with they are offer'd you, it will be the greateſt honour, and ſatisfaction to,

My Lord,

Your Lordſhips moſt humble,

Moſt obliged, and moſt intirely

devoted Servant,

JOSEPH GLANVILL.

The PREFACE.

I *Shall not trouble the Reader with much formality, or tediousness of Prefacing, but only give a brief account of the following Discourses. I know it will be no plausible excuse for any of their Imperfections to alledg, that some of them were written when I was very young; since they came abroad again in an Age wherein more maturity of judgment is expected: But the truth is, I am not grown so much wiser yet, as to have alter'd any thing in the main of those conceptions. If I had thought it worth the while, I might have been more exact in new modelling, and could perhaps have given them a turn that would have been more agreeable to some phancies, but my Laziness, or my Judgment made me think there was no need of that trouble.*

The FIRST *Essay against* Confidence *in* Philosophy, *is quite changed in the way of Writing, and in the Order. Methought I was somewhat fetter'd and tied in doing it, and could not express my self with that ease, freedom, and fulness which possibly I might have commanded amid fresh thoughts: Yet 'tis so alter'd as to be in a manner new.*

The SECOND *of* Scepticism, *and* Certainty, *was written when I was warm in the Consideration of those matters, for the satisfaction of a particular Friend; what I say was enough for his use, though the Subject is capable of much more; and I had inlarged on it, but that I am loth to ingage further in Philosophical Arguments. I have annext some of the things I said to Mr.* White, *but the main of this Essay was never extant before.*

The THIRD *of* Modern Improvements, *was first a Controversie: I have here given it another shape. As I never begun a Quarrel, so I never will continue any, when I can fairly let it fall. The Discourse was written violently against by one, who was wholly unconcern'd. The interest he pretended, was the defence of his Faculty against a Passage, wherein he would have me say, That the ancient Physicians could not cure a* Cut-finger; *which I never affirm'd, or thought. But that Person is now so well known, that I need say no more of him, or of that Contest. His long studied, and triumphant* Animadversions *have given me no reason, or occasion to alter any thing in the Treatise, except some few* Errors

of

of the Press, *over which he most insulted. He hath written divers things against me since, but I have kept the promise I publickly made, and have never read them.*

Besides this Antagonist, the learned Dr. Meric Casaubon, *writ Reflections on this Essay in a Letter to Dr.* Peter Du Moulin, *who it seems had presented it to him. They were Printed in the year 1669, and my Answers soon after ready: But considering that the Doctor allow'd all that which was my main design, and only oppos'd his own mistakes, and suspicions, I thought fit to suppress my Reply; and was the rather silent because not willing to appear in a Controversie with a Person of Fame and Learning, who had treated me with so much Civility, and in a way so different from that of my other Assailants.*

I have further to advertise concerning this Essay, That whereas I mention several Discourses of Mr. Boyl's, *as intended for the Publick, 'tis likely that some of them by this may be extant, though my privacy and retirement hath not afforded me the notice of their publication.*

The FOURTH *Essay of the* Usefulness *of* Philosophy *to* Theology, *was Printed under the Title of* Philosophia Pia. *I was commanded to reprint it by a Person of Honour, and great Fame, for whose Learning and universal Accomplishments I have high and just venerations. This put into my thoughts the design of revising of some of my other Writings, and bringing them together into a small Collection, which I have here done.*

The FIFTH *of the* Agreement *of* Reason *and* Religion, *was at first a* Visitation Sermon, *twice Printed before; I have now only cast it into the form of a Discourse. It contains the substance of many thoughts and anxieties about that important matter, in a little compass. My chief care was to state, and represent the whole affair* clearly; *which I think I have done. The subject hath been written on by divers since, who some of them have perplext the matter again; others have added no one thought. They have written a great deal, I wish I could say,* to purpose. *I know this freedom is capable of a wrong interpretation, but I am urged to it by a little vexation that the pretenders to such a subject should afford me no advantage for the improving my conceptions on it.*

The SIXTH *Essay was one of the first written, and printed four times already. It stands in this place because it shews a particu-*

lar

lar service Philosophy *doth, in securing one of the out-works of* Religion. *The* Dæmon of Tedworth *that was annext, is ready to be Printed by it self, with a further Confirmation of that* certain, *though much oppos'd Relation. Since the publishing of these* Considerations *there hath a thing been put out, of the* Question of Witchcraft, *denying there are* Witches, *upon some of the weakest pretences I have urged, and disabled. Who ever reads this Essay will see that that Writer was answer'd before he gave himself the trouble to be an Author on that Subject.*

The SEVENTH *is entirely new. 'Tis a description of such a Genius in* Theology *and* Philosophy, *as I confess I my self like; and I believe some others may. But I blame no Mans different sentiment, who allows the liberty of judging that himself takes. I have borrowed the countenance, and colour of my Lord* Bacons *story; of which I have given the brief contents. The Essay is a mixture of an* Idæa, *and a disguised History.*

Reader, *I have done now: But I make thee no promise that I will not write again; for I perceive that those promises are hardly kept. To appear often in the Press I know is censur'd; but I see not why that should be a fault, whilst the Books themselves have not greater. If a Man write well, he may deserve excuse at least; if otherwise, by use he may mend; or if there be no hopes of that, his writing often is not worth objecting. Nor hath any one need to complain, since no one is concern'd about what another Prints, further than himself pleaseth: And since Men have the liberty to read our Books, or not: Methinks they might give us leave to write, or forbear. This I say, because I know this ill-natur'd humour, puts restraint upon the Pens of some great Men; and tempts others to make promises, and excuses, which I think do not become them. For my part I have as little leasure to write Books as other Men, for I have that to do which may be reckoned an Imployment; but every Man hath some vacancies, and I love now and then in this manner to imploy mine. 'Tis an innocent way of entertaining a Mans self, to paint the image of his thoughts, and no better a Writer than my self may happen to divert, if not to instruct, some others by it.*

ERRATA.

ERRATA.

The Reader is deſired to take notice of the following *Er-rours* of the *Preſs*, ſome of which are ſo near, in ſound, to the words of the Author, that they may eaſily be miſtaken for his.

ESSAY. I.

For.	Read.	Page.	Line.
B*Eſt* compactneſs	*Feaſt* compactneſs,	13	2
The herb, and the flower	Herb, and flower,	16	2
Before *us*. our diſcoveries	Before *us*, our diſcoveries,	25	34
All opinions	All *their* opinions,	26	21
Old Law,	Old *Saw*,	28	29
Heavens above, &c.	Heavens above *it*,	28	32
Other opinions	Opinions,	30	11
His *ſaying*	His *ſayings*	31	24

ESSAY. II.

Revile againſt	*Rail* againſt.	43	4
Boaſts of;	Boaſts;	47.	16
Iſellus	*Pſellus*	53	19
Are *certain*	*Contain*, and are	62	13

ESSAY. III.

I take 'twas	I take *it* 'twas,	4	10
Virulam	*Verulam*	34	14
Self-*abſurd*	Self-*aſſur'd*	52	12

ESSAY. IV.

Since *then*	Since *them*	17	16
Difference	*Deference* (tures	26	25
Jumblings, intermixtures	Jumblings *and* intermix-	32	13, 14
Flighted	*Slighted*	34	7

ESSAY. V.

Their *own* intereſt	Their intereſts	28	8

ESSAY.

ESSAY. VI.

For	Read.	Page.	Line.
Streams	*Steams*	14	22
From whatever	What ever	56	17
She apprending	She *apprehended*	56	22

ESSAY. VII.

To them. All	To them, All	6	13, 14
From *the* World	From *your* World	6	37
Such of them *that*	Such of them *as*	7	1
They that made	*That* they made	11	6
Main *works*	Main *marks*	30	33
(1.)	(2.)	43	31

Note, that the Sum of my Lord *Bacons Atlantis*, being the brief contents of his Story, printed in the beginning of the *7th* Eſſay, was intended as a Preface to it, and ſhould have been in the *Italick* Character; but the Printer hath not done that; nor made a ſufficient Break to diſtinguiſh my Lord *Bacons* Contents (ending *Page* 2. *Line* 12.) from the Authors Story.

Eſſay.

Essay I.

Against Confidence *in* Philosophy,

And Matters of Speculation.

ONE of the first things to be done in order to the enlargement, and encrease of Knowledg, is to make Men sensible, how *imperfect* their *Understandings* are in the present state, and how *lyable* to *deception:* For hereby we are disposed to more *warinesse* in our Enquiries, and taken off from *bold* and *peremptory* Conclusions, which are some of the greatest hinderances of *Intellectual* improvements in the World. Therefore, by way of *Introduction* to *Philosophy* and grounded Science, we must endeavour first to destroy the *confidence* of *Assertions*, and to establish a *prudent reservedness* and *modesty* in Opinions. In order to *this*, I shall here set down some thoughts I have had on this Subject. And in doing it, I shall

1. Offer some considerable *Instances* of Humane *Ignorance* and *Deficiency*, even in the main, and most usual things in Nature. 2. I shall enquire into the *Causes* of our *imperfection* in Knowledg, which will afford *further evidence* and *proof* of it: and 3. Add some *Strictures* against *Dogmatizing* in *Philosophy*, and all matters of *uncertain* Speculation.

My Instances shall be drawn, 1. From the *Nature* of our *Souls*; and 2. from the *Constitution* of our *own*, and *other Bodies*.

About the *former* I consider, That if Certainty were *any where* to be expected, one would think it should be had in the Notices of *our Souls*, which are our *true* selves, and whose Sentiments we most inwardly know: In things *without* us,

our *shallowness* and *ignorance* need not be matter of much wonder, since we cannot pry into the hidden things of Nature, nor observe the first Springs and Wheels that set the rest in motion. We see but little parcels of the Works of God, and want *Phænomena* to make entire and secure *Hypotheses*: But if *that* whereby we know *other* things, know not *it self*; If our *Souls* are strangers to things *within them*, which they have *more* advantage to understand than they have in matters of *external Nature*; I think then, that this *first* will be a *considerable Instance* of the *scantness* and *imperfection* of our *Knowledg*.

(1.) I take notice therefore, That the Learned have ever been at great odds and uncertainty about the *Nature* of the *Soul*; concerning which *every* Philosopher (almost) had a *distinct* Opinion: The *Chaldæans* held it a *Vertue without form*; *Xenocrates*, and the *Ægyptians*, a *moving Number*; *Parmenides*, a compound of *Light* and *Darkness*; *Hesiod* and *Anaximander*, a consistence of *Earth* and *Water*: *Thales* call'd it a *Nature without rest*; *Heraclides* supposed it to be *Light*; *Empedocles* to be *Blood*; *Zeno*, the *Quintessence* of the *Elements*. *Galen* would have it to be an *hot Complexion*; *Hippocrates*, a *Spirit diffused through the Body*; *Plato*, a *self-moving Substance*; *Aristotle*, an *Entelechy*, or no body knows what; and *Varro*, an *heated* and *dispersed Air*.

Thus have some of the greatest Men of antient times *differ'd* in one of the *first Theories* of *Humane Nature*, which may well be reckon'd an Argument of *uncertainty* and imperfection: And yet I account not the difficulties about *this*, to be so *hopeless*, as they are in *less noted Mysteries*. The great occasion of this diversity, and these mistakes, is, That Men would *form* some *Image* of the Soul in their *Fancies*, as they do in the contemplation of *corporeal* Objects: But this is a wrong way of speculating *Immaterials*, which may be seen in their *effects* and *attributes*, by way of reflection; but if, like Children, we run behind the Glass to look for them, we shall meet nothing there but disappointment.

2. There hath been as much trouble and diversity in enquiring into the *Origine* of the *Soul*, as in searching into the nature of it: In the opinion of some learned Men, It was from the beginning of the World, created with the Heavens and Light:

Light: others have thought it an extract from the *Universal Soul:* Some fancied, it descended from the Moon; others from the Stars, or vast spaces of the *Æther* above the Planets; some teach, That God is the immediate Author of it; some that it was made by Angels; and some by the Parents. Whether it be *Created* or *Traduced*, hath been the great Ball of contention to the *latter* Ages, and after all the stir about it, 'tis still as much a question as ever, and perhaps may so continue till the great Day, that will put an end to all Differences and Disputes. The Patrons of *Traduction* accuse their Adversaries of affronting the *Attributes* of God; and the Assertors of *Immediate Creation* impeach them of violence to the *nature of things:* And while each of the Opinions strongly opposeth the other, and feebly defends it self, some take occasion thence to say, That both are right in their Oppositions, but both mistaken in their Assertions. I shall not stir in the Waters that have been troubled with so much contention: The Famous St. *Austin*, and others of the celebrated Antients, have been content to sit down here in a profest Neutrality, and I will not endeavour to urge Confessions in things that will be acknowledged; but shall note some Difficulties, that are not so usually observed, which perhaps have more darkness in them, than *these* so much controverted Doctrines.

1. I begin with the *Union* of the *Soul* and *Body:* In the *Unions* that we *understand*, there is still, either some *suitableness* and likeness of Nature in the things united, or some *middle*, *participating* Being by which they are joyn'd; but in this there is neither. The natures of Soul and Body, are at the most extream distance; and their essential Attributes most opposite: To be *impenetrable*, *discerpible* and *unactive*, is the nature of all *Body* and *Matter*, as such: And the properties of a *Spirit* are the direct contrary, to be *penetrable*, *indiscerpible*, and *self-motive:* Yea, so different they are in all things, that they seem to have nothing but *Being*, and the *Transcendental* Attributes of *that*, in common: Nor is there any appearance of *likeness* between them: For what hath *Rarefaction*, *Condensation*, *Division*, and the other properties and modes of Matter, to do with *Apprehension*, *Judgment*, and *Discourse*, which are the proper acts of a Spiritual Being? We cannot

then perceive any *congruity*, by which they are united: Nor can there be any *middle* sort of Nature that partakes of each, (as 'tis in some Unions) their Attributes being such *extreams*: or, if there is any such Being, or any such possible, we know nothing of it, and 'tis utterly unconceivable. So that, what the *Cement* should be that unites *Heaven* and *Earth*, *Light* and *Darkness*, *viz.* Natures of so diverse a make, and such disagreeing Attributes, is beyond the reach of any of our Faculties: We can as easily conceive how a thought should be united to a Statue, or a Sun-beam to a piece of Clay: how words should be frozen in the Air, (as some say they are in the remote North) or how Light should be kept in a Box; as we can apprehend the *manner* of this *strange Union*.

2. And we can give no better account how the *Soul moves the Body*. For whether we conceive it under the notion of a *Pure Mind*, and *Knowledg*, with Sir *K. Digby*; or of a *Thinking Substance*, with *Des Cartes*; or of a *penetrable*, *indiscerpible*, *self-motive* Being, with the *Platonists*; It will in all these ways be unconceivable how it gives motion to unactive matter: For how that should *move a Body*, whose nature it is to *pass through* all Bodies without the least *jog* or *obstruction*, would require something more than we know, to help us to conceive. Nor will it avail to say, that it moves the Body by its *vehicle* of corporeal Spirits; for still the difficulty will be the same, *viz. How it moves them?*

3. We know as little, How the *Soul so regularly directs the Animal Spirits*, and Instruments of Motion which are in the Body; as to stir any we have a will to move: For the passages through which the Spirits are convey'd, being so numerous, and there being so many others that cross and branch from each of them, 'tis wonderful they should not lose their way in such a Wilderness: and I think the wit of Man cannot yet tell how they are directed. That they are conducted by some *knowing* Guide, is evident from the *steadiness* and *regularity* of their motion: But *what* that should be, and *how* it doth it, we are yet to seek: That all the motions within us are not directed by the meer mechanick frame of our Bodies, is clear from experience, by which we are assured, that those we call *Spontaneous* ones, are under the *Government* of the *Will*: at least

the *determination* of the Spirits into *ſuch* or ſuch paſſages, is from the *Soul*, whatever we hold of the conveyances after; and *theſe*, I think, all the Philoſophy in the World cannot make out to be *purely mechanical*. But though this be gain'd, that the *Soul* is the *principle* of *Direction*, yet the difficulty is no leſs than it was before: For unleſs we allow it a kind of inward ſight of every Vein, Muſcle, Artery, and other Paſſage of its own Body; of the exact ſite and poſition of them, with their ſeveral Windings, and ſecret Chanels, it will ſtill be as unconceivable, how it ſhould direct ſuch intricate Motions, as that one that was born blind ſhould manage a Game at Cheſs, or marſhal an Army: And if the *Soul* have any ſuch knowledg, we are not aware of it; nor do our minds attend it: Yea, we are ſo far from this, That many times we obſerve not any method in the outward performance, even in the greateſt variety of interchangable motions, in which a ſteady Direction is difficult, and a Miſcarriage eaſie: As we ſee an Artiſt will play on an Inſtrument of Muſick without minding it; and the Tongue will nimbly run diviſions in a Tune without miſſing, when the Thoughts are engaged elſewhere: which effects are to be aſcribed to ſome *ſecret Art* of the Soul (if *that* direct) to which we are altogether ſtrangers.

4. But beſides the Difficulties that lie more deep; we are at a loſs even in the knowledg of our *Senſes*, that ſeem the moſt *plain* and *obvious* of our Faculties. Our eyes that ſee other things, ſee not themſelves; and the *Inſtruments* of *Knowledg* are *unknown*. That the *Soul* is the *percipient*, which alone hath *animadverſion* and *ſenſe*, properly ſo call'd; and that the *Body* is only the *receiver*, and *conveyer* of corporeal *Motions*, is as certain as Philoſophy can make it. *Ariſtotle* himſelf teacheth it in that Maxim, Νȣ̃ς ὁρᾷ ϗ νȣ̃ς ἀκȣ́ει: And *Plato* affirms, That the Soul hath life and ſence; but that the *Body* in ſtrictneſs of ſpeaking, hath neither the one nor other: Upon which poſition all the Philoſophy of *Des Cartes* ſtands: And it is ſo clear, and ſo acknowledg'd a Truth, among all conſidering Men, that I need not ſtay to prove it: But yet, what are the *Inſtruments* of ſenſitive Perception, and *particular convers* of outward Motions to the ſeat of Senſe, is difficult to find;

and

and how the *pure Mind* can receive information from things that are not like it ſelf, nor the objects they repreſent, is, I think, not to be explain'd. Whether *Senſation* be made by *corporeal Emiſſions*, and *material Images*; or by *Motions* that are convey'd to the common ſenſe, I ſhall not diſpute: the *latter* having ſo generally obtain'd among the Philoſophers: But, How the Soul by *mutation*, and *motion* in *matter*, a ſubſtance of an *other* kind, ſhould be excited to action; and how *theſe* ſhould concern it, that is of ſo divers a nature, is hardly to be conceiv'd. For *Body* cannot act on any thing, but by *Motion*; *Motion* cannot be receiv'd but by *Matter*, the *Soul* is altogether *immaterial*; and therefore, how ſhall we apprehend it to be ſubject to *ſuch Impreſſions?* and yet *Pain*, and the *unavoidableneſs* of our Senſations evidently prove, That it is ſubject to them.

Beſides, How is it, and by what *Art* doth the Soul read, That *ſuch* an *Image*, or Motion in matter, (whether that of her Vehicle, or of the Brain, the caſe is the ſame) *ſignifies ſuch an Object?* If there be any ſuch Art, we conceive it not: and 'tis ſtrange we ſhould have a Knowledg that we do *not know*. That by diverſity of *Motions* we ſhould ſpell out *Figures*, *Diſtances*, *Magnitudes*, *Colours*; things not *reſembled* by them, we muſt aſcribe to ſome *implicit inference*, and deduction; but *what* it *ſhould be*; and by what *Mediums* that Knowledg is advanced, is altogether *unintelligible*. For though the Soul may perceive *Motions* and *Images* by ſimple *ſenſe*, yet it ſeems unconceivable it ſhould apprehend what they *ſignifie*, and repreſent, but by ſome ſecret Art and way of inference: An illiterate Perſon may ſee the Letters, as well as the moſt Learned,but he knows not what they mean; and an Infant hears the ſounds, and ſees the motion of the Lips, but hath no conception convey'd to him, for want of knowing the ſignification of them: ſuch would be our caſe, notwithſtanding all the motions and impreſſions made by external things, if the Soul had not ſome unknown way of learning by them the quality of the Objects. For inſtance, *Images* and *Motions* have but very *ſmall* room in the Brain, where they are receiv'd, and yet they repreſent the *greateſt* Magnitudes; The Image, Figure, (or what-ever elſe it may be call'd)

call'd) of an Hemiſphere of the Heavens, cannot have a Subject larger than the pulp of a Walnut ; and how can ſuch petty Impreſſions, make known a Body of ſo vaſt a wideneſs, without ſome kind of *Mathematicks* in the Soul : And except this be ſuppos'd, I cannot apprehend how *Diſtances* ſhould be perceiv'd ; but all Objects would appear in a cluſter. Nor will the Philoſophy of *Des-Cartes* help us here ; For the moving *divers Filaments* in the Brain, cannot make us perceive ſuch modes as Diſtances are, unleſs ſome ſuch Art and Inference be allow'd, of which we underſtand nothing.

5. The *Memory* is a Faculty in us as *obſcure*, and perhaps as unaccountable as any thing in Nature. It ſeems to be an *Organical* Power, becauſe Diſeaſes do often blot out its Ideas, and cauſe Oblivion : But what the marks and impreſſions are by which the Soul *remembers*, is a queſtion that hath not yet been very well reſolv'd. There are four principal Hypotheſes by which an account hath been attempted ; The *Peripatetick*, the *Carteſian*, the *Digbæan*, and the *Hobbian*.

1. According to the *Peripatetick* Schools, *Objects* are conſerv'd in the memory by certain *Intentional Species* (as they call them) a ſort of Beings, that have a neceſſary dependance upon their Subjects ; but are not material in their formal Conſtitution and Nature. I need not ſay much againſt theſe arbitrary precarious Creatures, that have no foundation in any of our Faculties : Or be that how it will, They are utterly *unintelligible* ; neither *bodily*, nor *ſpiritual* ; neither produc'd out of *any* thing, as the *matter* of their production ; nor out of *nothing*, which were *Creation*, and not to be allow'd to be in the power of every, or any finite Being. And though there were no ſuch contradictious contrivance in the framing theſe Species, yet they could not ſerve any purpoſe, as to the Memory, ſince 'tis againſt the nature of *emanative* Effects, ſuch as theſe are, to ſubſiſt but by the continual influence of their Cauſes ; and ſo, if this were the true Solution, we could remember nothing longer than the Object was in preſence.

2. The account of *Des-Cartes* is to this purpoſe ; The Spirits are ſent about the Brain, to find the *tracks* of the Objects we would call to mind ; which Tracks conſiſt in *this*, *viz*, *That the Pores through which the Spirits that came from*

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the Objects past, are more easily open'd, and afford a more ready passage to those others that seek to enter; whence ariseth a *special motion* in the *Glandule*, which signifies *this* to be that we would remember.

But if our *Remembrance* arise from the *easie motion* of the *Spirits* through the *opened* passages (according to this Hypothesis); How then do we so distinctly remember such a variety of Objects, whose Images pass the *same* way? And how the *Distances* of Bodies that *lie in a Line?* Why should not the impell'd Spirits find *other* open passages, besides those made by the thing we would remember? When there are such continual motions through the Brain from numerous other Objects? Yea, in such a pervious substance as that is, why should not those subtile Bodies meet, every where an easie passage? It seems to me that one might conceive as well, how every Grain of Corn in a Sieve should be often shaken through the same holes, as how the Spirits in the repeated acts of Memory should still go through the same Pores: Nor can I well apprehend but that those supposed open'd passages, would in a short time be stopt up, either by the natural gravity of the parts, or the making new ones near those; or other alterations in the Brain.

3. The *Hypothesis* of Sir *Kenelm Digby*, is next, *viz.* That things are preserv'd in the Memory by *material Images* that flow from them, which having imping'd on the common sense, rebound thence into some vacant Cells of the Brain, where they keep their ranks, and postures, as they entred, till again they are stirr'd, and then they appear to the Fancy as they were first presented.

But how is it conceiveable, That those active Particles which have nothing to unite them, or to keep them in any order, yea which are continually justled by the occursion of other minute Bodies, (of which there must needs be great store in this Repository) should so long remain in the same state and posture? And how is it that when we turn over those Idæa's that are in our memory, to look for any thing we would call to mind, we do not put all the Images into a disorderly floating, and so make a Chaos of confusion there, where the exactest Order is required: And indeed according

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to this account, I cannot see but that our Memories would be more confused than our Dreams: and I can as easily conceive how an heap of Ants can be kept to regular and uniform Motions.

4. Mr. *Hobbs* attempts another way; there is nothing in us, according to this Philosopher, but *Matter* and *Motion*: All *Sense* is *Reaction* in *Matter* [*Leviath.* Chap. 1.] the *decay* of that *Motion*, and *Reaction*, is *Imagination*; [Chap. 2.] And *Memory* is the same thing, *expressing that decay.* [*Ib.*] So that according to *M. H.* all our *Perceptions* are *Motions*, and so is *Memory*: Concerning which, I observe but two things;

1. Neither the *Brain*, nor *Spirits*, nor any other *material* Substance within the Head, can for any considerable time conserve Motion. The *Brain* is such a *clammy* Consistence, that it can no more retain it than a *Quagmire*; The *Spirits* are more *liquid* than the Air, which receives every Motion, and loseth it as soon: And if there were any *other corporeal* part in us, as fitly temper'd to keep Motion as could be wisht; yet (2.)the *Motions* made in it would be quickly *deadned* by *Counter-Motions*;and so we should never remember any thing longer than till the next Impression: and it is utterly impossible that so many Motions should orderly succeed one another,as things do in our Memories; For they must needs, ever and anon, thwart, interfere, and obstruct one another, and so there would be nothing in our Memories, but Confusion and Discord.

Upon the whole we see, that this seemingly plain Faculty, the *Memory*, is a Riddle also which we have not yet found the way to resolve.

I might now add many other difficulties, concerning the *Understanding*, *Fancy*, *Will*, and *Affections*: But the Controversies that concern *these*, are so hotly managed by the divided Sohools, and so voluminously handled by disputing Men, that I shall not need insist on them: The only Difficulties about the *Will*, its *nature* and *manner* of *following* the *Understanding*, &c. have confounded those that have enquired into it; and shewn us little else, but that our Minds are as *blind*, as that *Faculty* is said to be by most Philosophers. These Controversies, like some Rivers, the further they run, the

more they are hid: And perhaps after all our Speculations and Diſputes, we conceive leſs of them now, than did the more plain, and ſimple Underſtandings of former times. But whether we comprehend or not, is not my preſent buſineſs to enquire, ſince I have confined my ſelf to an Account of ſome great Myſteries, that do not make ſuch a noiſe in the World: And having ſpoken of ſome that relate to our *Souls*; I come now to ſome others that concern

II. *BODIES:* I begin with our *Own*; which though we *ſee*, and *feel*, and have them *neareſt* to us, yet their inward Conſtitution and Frame, is hitherto an undiſcovered Region: And the ſaying of the Kingly Prophet, that *we are wonderfully made*, may well be underſtood of that *admiration*, that is the Daughter of Ignorance.

For, 1. There hath no good account been yet given, how our *Bodies* are *formed:* That there is *Art* in the contrivance of them, cannot be denied, even by thoſe that are leaſt beholden to Nature: and ſo elegant is their compoſure, that this very Conſideration ſaved *Galen* from being an *Atheiſt:* And I cannot think that the branded *Epicurus*, *Lucretius* and their Fellows were in earneſt, when they reſolv'd this Compoſition into a *fortuitous range of Atoms:* 'Twere much leſs abſurd to ſuppoſe, or ſay, that a Watch, or other curious *Automaton*, did perform divers *exact* and *regular* Motions, by *chance*; than 'tis to affirm, or think, that this admirable *Engine*, an *Humane Body*, which hath ſo many Parts, and Motions, that *orderly* cooperate for the good of the whole, was framed without the Art of ſome knowing Agent: But who the skilful, particular *Archeus* ſhould be; and by *what* Inſtruments, and *Art* this Fabrick is erected, is ſtill unknown. That God hath *made us*, and *faſhion'd* our Bodies in *the nethermoſt parts of the Earth*, is undoubted; But he is the *firſt* and *univerſal* Cauſe, who tranſacts things in Nature by *ſecondary* Agents, and not by his own *immediate hand:* (The ſuppoſal of *this* would deſtroy *all Philoſophy*, and enquiry after Cauſes) So that *He* is ſtill *ſuppoſed*; but the Query is of the *next*, and *particular Agent*, that forms the Body in ſo exquiſite a manner; a Queſtion that hath not yet been anſwered. Indeed by ſome 'tis thought enough to ſay, That it is done by the *Plaſtick Faculty*; and by others

others 'tis believ'd that the *Soul* is that that forms it. For the *Plastick Faculty*, 'tis a *big word*, but it conveys nothing to the Mind: For it signifies but *this*, that the Body is *formed* by a *formative Power*; that is, 'tis *done*, by a *power of doing it*. But the doubt remains still, what the *Agent* is that hath *this power?* The other Opinion of the *Platonists*, hath two Branches: some will have it to be the particular Soul, that fashions its own Body; others suppose it to be the general Soul of the World: If the former be true, By what *knowledg* doth it do it? and *how?* The *means*, and *manner* are still *occult*, though that were granted. And for the *other* way, by a *general Soul*; That is an *obscure* Principle, of which we can know but little; and how that acts (if we allow such a being) whether *by knowledg*, or *without*, the Assertors of it may find difficulty to determine. The former makes it little less than *God* himself; and the *latter* brings us back to *Chance*, or a *Plastick Faculty*. There remains now but one account more, and that is the *Mechanical*; *viz*. That it is done by *meer Matter* moved after *such*, or *such* a manner. Be that so: It will yet be said, that *Matter* cannot move *it self*; the question is still of the *Mover*; The Motions are *orderly*, and *regular*; Query, *Who guides? Blind Matter* may produce an elegant effect for once, by a great Chance; as the Painter accidentally gave the Grace to his Picture, by throwing his Pencil in rage, and disorder upon it; But then *constant* Uniformities, and Determinations to a *kind*, can be *no Results* of *unguided Motions*. There is indeed a *Mechanical Hypothesis* to this purpose; That the Bodies of *Animals* and *Vegitables* are formed out of *such* particles of Matter, as by reason of their Figures will not lie together, but in the order that is necessary to make *such* a Body; and in *that* they naturally concur, and rest; which seems to be confirm'd by the *artificial Resurrection* of *Plants*, of which *Chymists* speak, and by the regular Figures of Salts, and *Minerals*; the *hexagonal* of *Chrystal*, the *Hemi-spherical* of the *Fairy-Stone*, and divers such like. And there is an experiment mentioned by approved Authors, that looks the same way; It is, That after a decoction of Herbs in a frosty Night, the shape of the Plants will appear under the Ice in the Morning: which Images are supposed to be made by the congregated *Effluvia* of the

Plants themselves, which loosly wandring up and down in the Water, at last settle in their natural place and order, and so make up an appearance of the Herbs from whence they were emitted. This account I confess hath something ingenious in it; But it is no solution of the Doubt. For how those *heterogenous* Atoms should hit into their proper places, in the midst of such various and tumultuary Motions, will still remain a question: Let the *aptness* of their *Figures* be granted, we shall be yet to seek for something to *guide* their *Motions:* And let their *natural Motion* be what it will, *gravity* or *levity*, *direct* or *oblique*, we cannot conceive how *that* should carry them into every particular place where they are to lie; especially considering they must needs be sometimes diverted from their course by the occursion of many other Particles. And as for the *Regular Figures* of many *inaminate* Bodies, that consideration doth but *multiply* the doubt.

2. The *union* of the *parts* of *Matter*, is a thing as difficult as any of the former: There is no account that I know, hath yet appear'd worth considering, but *that* of *Des-Cartes*; *viz.* That they are *united* by *juxta-position*, and *rest.* And if this be all, Why should not a bag of Dust be of as firm a Consistence, as Marble or Adamant? Why may not a Bar of Iron be as easily broken as a pipe of Glass; and the Ægyptians *Pyramids* blown away, as soon as those *inverst ones* of smoke. The only reason of difference pretended by some, is, that the Parts of *solid* Bodies are held together by natural *Hooks*; and *strong* ones, by *such* Hooks as are more *tough* and *firm:* But how do the parts of these *Hooks* stick together? Either we must suppose *infinite* of them *holding each other*; or come at last to parts united by *meer juxta-position*, and *rest.* The former is very absurd, for it will be necessary, That there should be *some*, upon which the *Cohesion* of *all the rest* should *depend*; otherwise, all will be an heap of Dust. But in favour of the Hypothesis of *Des-Cartes*, it may be said, That the *closeness* and *compactness* of the parts resting together, makes the *strength* of the *Union:* For, (as that *Philosopher* saith) *Every thing continues in the state wherein it is, except something more powerful alter it*; and therefore the Parts that rest close together will so continue, till they are parted by some other stron-

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ger Body: Now the *more* parts are pent together, the *more* able they will be for *resistance*; and what hath best *compactness*, and by consequence *fewer parts*, will not be able to make any alteration in a Body that hath *more*. According to this Doctrine, what is *most dense*, and *least porous*, will be *most* coherent, and *least* discerpible; which yet is contrary to experience. For we find the most *porous*, *spongy* Bodies, to be ofttimes the most *tough* of Consistence. We easily break a Tube of Glass or Chrystal; when one of Elm, or Ash, will hardly be torn in pieces: and yet as the *parts* of the *former* are *more*, so are they more at *rest*; since the *liquid* Juice diffused through the Wood is in continual agitation, which in *Des-Cartes* his *Philosophy* is the cause of *fluidity*; so that according to his Principles, the *dryest* Bodies should be the most *firm*; when on the contrary, we find that a *proportionate humidity* contributes much to the *strength* of the *Union*. (Sir *K. Digby* makes it the *Cement* it self) and the *driness* of many Bodies is the cause of their *fragility*, as we see 'tis in *Wood*, and *Glass*, and divers other Things.

3. We are as much at a loss about the *composition* of *Bodies*, whether it be out of *Indivisibles*, or out of parts always divisible: For though this question hath been attempted by the subtilest Wits of all Philosophick Ages; yet after all their *distinctions*, and *shifts*, their new-invented words, and *modes*, their *niceties* and tricks of *subtilty*, the Matter stands yet unresolv'd. For do what they can, *Actual*, *Infinite extension every where*; *Equality* of all *Bodies*, *Impossibility* of *Motion*, and a world more of the most palpable Absurdities, will press the Assertors of *Infinite Divisibility*: Nor on the other side, can it be avoided, but that all *Motions* would be equal in *velocity*: That the *Lines* drawn from side to side in a *Pyramid*, would have *more Parts* than the *Basis*: That *all Bodies* would be *swallowed* up in a *Point*; and many other Inconsistencies will follow the Opinion of *Indivisibles*. But because I have confined my self to the Difficulties that are not so usually noted; I shall not insist on *these*, but refer the Reader, that hath the humour, and leisure, to inquire into such Speculations, to *Oviedo*, *Pontius*, *Ariaga*, *Carelton*, and other Jesuites, whose management of this Controversie, with equal force on either

side,

side, is a considerable Argument of the unaccountableness of this Theory, and of the weakness of our present Understandings.

I might now take into consideration the Mysteries of *Motion*, *Gravity*, *Light*, *Colours*, *Vision*, *Sounds*, and infinite such like, (things *obvious*, yet *unknown*) but I insist no further on Instances, but descend to the second thing I propounded to treat of, *viz.*

II. The *CAUSES* of our *Ignorance*, and Mistakes; And in them we shall find further evidence of the imperfection of our Knowledg. The Causes to be consider'd, are either, 1. The *Difficulties* and *Depth* of *Science*: Or, 2. The *present temper of our Faculties*. Science is the *Knowledg* of things in their *Causes*; and so 'tis defined by the Pretenders to it. Let us now enquire a little into the difficulties of attaining such Knowledg.

1. We know no Causes by *Simple Intuition*, but by *Consequence* and *Deduction*; and there is nothing we so usually infer from, as *Concomitancy*; for instance, We *always* feel *heat* when we come near the *Fire*, and *still* perceive *Light* when we see the *Sun*; and thence we conclude, that these are the Causes respectively of *Heat*, and *Light*; and so in other things. But now in this way of inference there lies great uncertainty: For if we had never seen more Sun, or Stars, than we do in cloudy weather, and if the Day had always broke with a Wind, which had increast and abated with the Light; we should have believed firmly that one of them had been the cause of the other;and so Smoke had been undoubtedly thought the efficient of the Heat, if nothing else had appeared with it. But the Philosophy of *Des-Cartes* furnisheth us with a better Instance; All the World takes the Sun to be the Cause of Day, from this Principle of Concomitance: But that Philosopher teacheth, That Light is caused by the *Conamen*, or endeavour of the Matter of the Vortex to recede from the Centre of its Motion; so that were there *none* of *that fluid Æther* in the midst of our World, that makes up the *Sun*, yet the *pressure* of the *Globuli* (as he calls those Particles) upon our Eyes, would not be considerably less: and so according to this Hypothesis, there would be *Light* though there were no *Sun*, or

Stars; and *Evening*, and *Morning* might *naturally* be *before*, and *without the Sun.* Now I ſay not that this Opinion is true and certain; but 'tis *poſſible*, and I know no abſurdity in it; and conſequently, our concluding a *Cauſality* from *Concomitancy*, *here*, and in *other* Inſtances may deceive us.

2. Our *beſt natural* Knowledg is *imperfect*, in that, after all our confidence, *Things ſtill are poſſible to be otherwiſe: Our Demonſtrations* are raiſed upon *Principles* of our *own*, not of *Univerſal* Nature; And, as my Lord *Bacon* notes, we judg from the *analogy* of our *ſelves*, *not the Univerſe:* Now many things are *certain*, according to the *Principles* of one Man, that are *abſurd* in the apprehenſions of many others: and ſome appear *impoſſible* to the *vulgar*, that are *eaſie* to Men of more improved Underſtandings. That is extravagant in one Philoſophy, which is a plain truth in another: and perhaps what is moſt impoſſible in the apprehenſions of Men; may be otherwiſe in the *Metaphyſicks*, and *Phyſiology* of Angels. The ſum is, We conclude *this* to be *certain*, and *that* to be *impoſſible* from our own narrow Principles, and little Scheams of Opinion. And the *beſt Principles* of *natural* Knowledg in the World, are but *Hypotheſes*, which *may be*, and *may be otherwiſe:* So that though we may *conclude* many things upon ſuch and ſuch Suppoſitions, yet ſtill our Knowledg will be but fair, and hopeful *Conjecture:* And therefore we may affirm that things are *this* way, or *that*, according to the Philoſophy that we have eſpouſed; but we ſtrangely forget our ſelves when we plead a *neceſſity* of their being ſo in Nature, and an *impoſſibility* of their being otherwiſe. The *ways* of God in *Nature* (as *in Providence*) are not as *ours* are: Nor are the Models that we frame any way commenſurate to the vaſtneſs and profundity of his Works; which have a *depth* in them greater than the *Well* of *Democritus*.

3. We cannot properly and perfectly know any thing in Nature without the knowledg of its *firſt Cauſes*, and the Springs of Natural Motions: And who hath any pretence to *this?* Who can ſay he hath ſeen Nature in its *beginnings?* We know nothing but *Effects*, nor can we judg at their immediate Cauſes, but by proportion to the things that do appear; which no doubt are very *unlike* the *Rudiments* of Nature.

ture. We ſee there is no reſemblance between the *Seed*, and the *Herb*, and the *Flowre*; between the *Sperm*, and the *Animal*; The Egg, and the *Bird* that is hatcht of it; And ſince there is ſo much *diſſimilitude* between *Cauſe* and *Effect* in theſe *apparent* things, we cannot think there is *leſs* between them and their *firſt*, and *inviſible* Efficients: Now had not our Senſes aſſured us of it, we ſhould never have ſuſpected that *Plants*, or *Animals* did proceed from ſuch *unlikely Originals*; never have imagined, that *ſuch Effects* ſhould have come from *ſuch Cauſes*, and we can conceive as little now of the nature and quality of the Cauſes that are beyond the proſpect of our Senſes: We may frame Fancies and Conjectures of them, but to ſay that the *Principles* of Nature are *juſt* as *our Philoſophy* makes them, is to ſet bounds to Omnipotence, and to circumſcribe infinite Power, and Wiſdom, by our narrow Thoughts and Opinions.

4. Every thing in Nature hath *relation* to divers others; ſo that no one Being can be perfectly known without the knowledg of many more: Yea, every thing almoſt hath relation to all things; and therefore he that talks of *ſtrict Science*, pretends to a kind of *Omniſcience*. All things are linkt together; and every Motion depends upon many prerequired Motors; ſo that no one can be perfectly known ſingly. We cannot (for inſtance) comprehend the cauſe of any Motion in a Watch, unleſs we are acquainted with other dependent Motions; and have inſight into the whole mechanical contexture of it; and we know not the moſt contemptible Plant that grows in any perfection, and exactneſs, until we underſtand thoſe other things that have relation to it; that is, almoſt every thing in Nature. So that each Science borrows from all the reſt, and we attain not any ſingle one, without comprehending the whole Circle of Knowledg.

I might ſay much more on this Subject, but I may have further occaſion of ſpeaking to it, under the *ſecond* General, *viz.* The Conſideration

II. Of the Imperfection of our preſent Faculties; and the malign Influence our *Senſes* and *Affections* have upon our Minds. I begin with the *SENSES*; and ſhall take no-

notice,

tice, 1. Of their *Dulness*; and 2. of their *liableness* to *Errour* and *Mistake*.

1. Our *Senses* are very *scant* and *limited*; and the *Operations* of Nature *subtil*, and *various*. They are only its *grosser* Instruments, and ways of working that are *sensible*; the *finer* Threads, and *immediate* Actions are out of reach; Yea, it's *greatest* works are perform'd by *invisible*, *insensible* Agents.

Now most of our *Conceptions* are taken from the *Senses*, and we can scarce judg of any thing but by the help of *material* Images, that are *thence* convey'd to us. The *Senses* are the *Fountain* of *natural* Knowledg; and the *surest* and *best Philosophy* is to be raised from the *Phænomena*, as *they* present them to us: when we leave *these*, and retire to the *abstracted notions* of our minds, we build Castles in the Air, and form *Chymerical Worlds*, that have *nothing real* in them. And yet when we take our accounts from those *best* Informers, we can learn but very little from their Discoveries. For we see but the *shadows*, and *outsides* of things; like the men in *Plato's* Den, who saw but the *Images* of external Objects, and but *so many* as came in through the narrow entrance of their Cave. The *World* of *God*, no doubt, is an other thing, than the *World* of *Sense* is; and we can judg but little of its *amplitude* and *glory* by the imperfect Idea we have of it. From this narrowness of our Senses it is, that we have been so long ignorant of a World of Animals that are with us, and about us, which now at last the *Glasses*, that in part cure this imperfection, have discover'd; and no doubt, there is yet a great variety of living Creatures that our *best* Instruments are *too gross* to disclose: There is *Prodigious fineness*, and *subtilty* in the *works* of *Nature*, which are too *thin* for our *Senses*, with all the advantages Art can lend them: And many, the greatest, and the best of its Objects are so *remote* that our Senses reach them not by any *Natural* or *Artificial* helps: So that we cannot have *other* than *short* and *confused* apprehensions of those works of Nature: And I sometimes fear, that we scarce yet see any thing as it is. But this belongs to an other consideration, *viz*.

2. Our *Senses* extremely *deceive us* in their *reports*, and informations; I mean, they give occasion to our minds to deceive themselves. *They* indeed represent things *truely* as they *appear*

to *them*, and in *that* there is *no deception*; but then, we *judge* the *exterior Realities* to be *according* to those *appearances*, and *here* is the Error and Mistake. But because the *Senses* afford the *ground* and *occasion*, and we naturally judg according to *their* impressions, therefore the *Fallacies* and *Deceits* are imputed to *their misinformations*. This I premise, to prevent a Philosophical mistake, but shall retain the common way of speaking, and call *those* the *errors* of the *Senses*. That *these* very frequently misreport things to us, we are assured even from themselves: a *straight* stick seems *crooked* in the *Water*, and a *square* Towre *round* at a *distance*; All things are *Yellow* to those that have the *Jaundice*, and all Meats are *bitter* to the *disaffected* Palate: To which vulgar Instances it will presently be answer'd, that the Senses in those cases, are not in their *just circumstances*; but want the fit *medium*, due *distance*, and *sound disposition*: which we know very well, and learn there was somewhat amiss; because our Senses represent those things otherwise at othertimes: we see the stick is *straight* when it is *out* of the Water; and the Tower is *square* when we are *near* it. Objects have *other Colours*, and Meats *other tastes*, when the Body, and its Senses are in their usual temper. In such cases, *Sense* rectifies its own mistakes, and many times one the errors of another; but if it did not do so, we should have been *alwayes deceived even* in *those* Instances: and there is no doubt, but that there are many other *like deceptions*, in which we have no contrary evidence from them to disabuse us; not in the matters of common Life, but in things of *remoter speculation*, which this state seems not to be made for. The Senses must have their due *medium*, and *distance*, and *temper*; if any of *these* are amiss, they represent their Objects *otherwise* to us than they *are*: Now *these*, we may suppose. they generally have, in the *necessary* matters of Life, if not to report things to us as they are in themselves, yet to give them us *so*, as may be for our accommodation, and advantage: But how are we assur'd, that they are *thus rightly disposed*, in reference to things of *Speculative* Knowledg? What *medium*, what *distance*, what *temper* is necessary to convey Objects to us just *so*, as they are in the *realities* of Nature? I observ'd before that our Senses are *short*, *imperfect*, and uncommensurate to the vastness and pro-

profundity of things, and therefore cannot receive the *just* Images of them: and yet we judg all things according to those *confused*, and *imperfect Idæas*, which must needs lead us into infinite errors, and mistakes.

If I would play the *Sceptick* here, I might add, That no one can be sure that any Objects appear in the same manner to the Senses of other men, as they do to his: Yea, it may seem probable, that they *do not*? For though the Images, *Motions*, (or whatever else is the cause of Sence) may be *alike* as from them; yet the *representations* may be much varied according to the *nature* and *quality* of the *recipient*: we find things look otherwise to us through an *Optick* Tube, then they do when we view them at a distance with our *naked* eyes: the same Object appears *red*, when we look at it through a Glass of *that* Colour, but *green* when we behold it through one of *such* a Tincture. Things seem *otherwise* when the Eye is *distorted*, then they do, when it is in its *natural*, *ordinary*, posture; and some *extraordinary alterations* in the Brain *double that* to us, which is but a *single* Object: Colours are *different*, according to different *Lights*, and *Positions*; as 'tis in the necks of Doves, and folds of Scarlet: Thus *difference* in *circumstances alters* the *sensation*; and why may we not suppose as *much diversity* in the Senses of *several* men, as there is in those *accidents*, in the perceptions of *one*? There is *difference* in the *Organs* of Sense, and *more* in the *temper* and *configuration* of the *inward* parts of the Brain, by which motions are convey'd to the seat of Sense; in the *Nerves*, *Humours* and *Spirits*, in respect of *tenuity*, *liquidity*, *aptitude* for *motion*, and divers other circumstances of their nature; from which it seems that great diversity doth arise in the manner of receiving the *Images*, and consequently in the perceptions of their Objects. So then, though every man knows, *how* things appear to *himself*, yet *what* impressions they make upon the so *different* Senses of another, *he only knows* certainly, that is *conscious* to them. And though all men agree to call the *impression* they feel from *such*, or *such* an Object, by the *same* name; yet no one can assuredly tell but that the *Sentiment* may be *different*; It may be one man hath the impression of *Green* from *that*, which in another begets the Sense of *Yellow*; and yet they both call it *Green*, because from their infancy they

were wont to join *that* word to *that* Sentiment, which ſuch an Object produc'd in their *particular* Senſe; though in *ſeveral* men it were a very divers one. *This* I know ſome will think hard to be underſtood; but I cannot help that: Thoſe that *Conſider* will find it to be very plain; and therefore I ſhall ſpend no more words about it.

The Sum is, Our Senſes are good Judges of *Appearances*, as they concern us: but how things *are* in themſelves, and how they *are* to others, it ſhould ſeem, we cannot *certainly* learn from them: And therefore when we determine that they *are*, and *muſt* be according to the repreſentations of our *individual* Senſes, we are very often groſly deceiv'd in ſuch ſentences; to which yet we are exceeding prone; and few but the moſt exerciſed minds, can avoid them. Of this I'le give a *great* Inſtance or two.

1. It is almoſt *univerſally* believ'd (at leaſt by the vulgar,) that the *Earth reſts* on the *Centre* of the World; and thoſe ancient Philoſophers have been extreamly hooted at, and derided, that have taught the contrary doctrine: For my part, I ſhall affirm nothing of the main queſtion; but this I ſay, That the common inducement to believe it ſtands ſtill, viz. the *Teſtimony* of *Senſe*, is no argument of it: And whether the opinion of *Pythagoras*, *Copernicus*, *Des-Cartes*, *Galilæo*, and almoſt all late Philoſophers, of the *motion* of the *Earth*, be *true*, or *falſe*; the belief of its *Reſt*, as far as it ariſeth from the *preſum'd evidence* of *Sence*, is an error.

That there is ſome common motion that makes the day, and night and the varieties of ſeaſons, is very plain and ſenſible; but whether the *Earth*, or the *Sun* be the Body mov'd, none of our Senſes can determine; To *Senſe* the *Sun ſtands ſtill* alſo; *and no* Eye can perceive its *Actual* motion. For though we find, that in a little time it hath *chang'd* its *Poſition*, and *reſpect* to us; yet whether *that change* be cauſ'd by *its tranſlation* from *us*, or *ours* from *it*, the *Senſe* can never tell: and yet from *this*, and *this* only, the greateſt part of mankind believes its motion. On the other ſide, The ſtanding ſtill of the *Earth* is concluded the *ſame* way; and yet, though it did move, it would appear *fixt* to us as *now* it doth, ſince we are carried with it, in a *regular* and moſt *even* courſe, in which caſe *motion* is not *perceiv'd*; as

we

we find ſometimes in ſailing in a Ship, when the *Shores* ſeem to *move*, and not *that*; —— *Littus*, *Campiq*; *recedunt*.

But I give another Inſtance of a like deception; It is, 2. The *tranſlation of our own paſſions* to *things without us*: as we judg *Light* and *Heat*, and *Cold*, to be *formally* in the *Sun*, *Fire*, and *Air*; when as indeed they are but *our own perceptions*. As they are in thoſe external Subjects, they are nothing, but *ſuch* or *ſuch configurations and motions* in matter;but when they *work* on *us*, they produce different *ſentiments*, which we call *Heat*, and *Light*,&c. This will appear to be true to any one that can *freely* and *attentively* conſider it; and yet it will be thought ſo ſtrange and abſurd by the generality of men, that they will aſſoon believe with *Anaxagoras*, that *Snow is black*, as him that affirms, that the *Fire* is not *formally hot*; that is, that the *very thing* we *feel*, and call *Heat* in our ſelves, is not *ſo* in *that body*: when as *there*, it is but a *violent agitation* of the *ſubtile*, and *divided* parts of matter, that in it ſelf is nothing *like* what we perceive from it, and call *Heat*: That we are *hot* our ſelves, we *feel*; but that the *Fire* hath any ſuch *formal* quality as is in our Senſe, *no Senſe* can inform us; and yet from its ſuppoſed evidence men generally *ſo* conclude. Which is an other conſiderable Inſtance of the *falſe* judgments we make on the occaſion of our Senſes.

And now, It is not only *common* underſtandings that are abuſed,and deceiv'd by their Senſes; but even the moſt advanc'd Reaſons are many times miſled by them: And ſince we live the Life of *Beaſts* before we grow up to Men, and our minds are *Paſſive* to the impreſſions of Senſe, it cannot be, that our firſt knowledg ſhould be other, than heaps of Errour, and miſconception; which might be rectified by our *after-judgments*, but that 'tis another unhappineſs of our natures, that thoſe early impreſſions ſtick by us, and we are exceedingly apt pertinaciouſly to adhere to them: And though our improving underſtandings do in part undeceive us, and deſtroy ſome *groſſer* errours; yet *others* are ſo faſtned, that they are never after remov'd, or diſſetled. So that we are not quite weaned from our *Child-hood* till we return to our *ſecond Infancy*; and even our Grey-Heads out-grow not thoſe errors, which we learnt before the Alphabet. And therefore ſince we contracted ſo

many

many prejudices in our tender years, and those Errors have as plausible an appearance, as the most genuine truths, the best way to attain true Knowledg is to *suspend* the giving our confirm'd assent to those Receptions, till we have looked them over by an impartial inquiry; To reckon of them all as false, or uncertain, till we have examin'd them by a *free*, and *unpossest* Reason; and to admit nothing but what we *clearly*, and *distinctly perceive*. This is the great *Rule*, in the excellent Method of *Des-Cartes*; but the practise of it requires such a *clear*, *sedate* and *intent* mind, as is to be found but in a very few rare tempers; and even in *them*, *prejudices* will creep in, and spoil the *perfection* of their *Knowledg*.

I might discourse next of those Errors that do arise from the *fallacies* of our *Imaginations*, whose unwarrantable compositions and *applications*, do very frequently abuse us: and indeed, the *Reason* of the greatest part of mankind is nothing else but *various Imagination*; Yea, 'tis a hard matter for the *best* and *freest* minds to deliver themselves from the *Prejudices*, of Phancy; which, besides the numerous lesser Errors they betray us into, are great occasions (particularly) of those many mistakes we are guilty of in speculating *Immaterial* Natures, & inquiring into the *Attributes* of God; and we are much entangled, and puzled by them, in all things we think, or say about *Infinity*, *Eternity* and *Immensity*, and most other of the sublime Theories both of *Philosophy*, or *Theology*. But *these* all arise, either from the *false Images* of *Sense*, and the undue compositions, and wrong inferences that we raise from them; and therefore I shall not need make *this* a distinct head from the other, of which I have just treated.

I come now, II. To consider the evil Influence our *Affections* have over our Understandings, by which they are great Reasons of our *Ignorance*, and *Mistakes*. *Periit Judicium ubi res transiit in affectum*. That *Jupiter* himself cannot be *Wise*, and in *Love*, was a saying of the Ancients, and may be understood in a larger Sense then They meant. *That* understanding *only* is capable of passing a just Sentence, that is, as *Aristotle* saith of the *Law*, Νȣ̃ς ἄνευ ὀρέξεως; but where the *Will* and *Passions* have the casting voice, the cause of Truth is desperate.

perate. Now this is the present unhappy state of Man; our *lower* powers are gotten *uppermost*, and we see like Men *on their Heads*, as *Plato* observ'd of old, *That on the right hand, which indeed is on the left.* The *Woman* in us still prosecutes a deceipt like *that* begun in the Garden; and we are wedded to an *Eve*, as fatal as the Mother of ous Miseries. The *Deceiver* soon found this soft place in *Adam*, and Innocency it self did not secure him from *this* way of seduction: We now scarce see any thing but through our passions, that are wholly blind, and incapable: So that the Monsters that story relates to have their *Eyes* in their *Breasts*, are pictures of us in our *invisible selves*.

And now, all things being double-handed, and having *appearances* both of *Truth*, and *Falshood*, the ingaged affection *magnifieth* the *shews of Truth*, and makes the belov'd opinion appear as *certain*; while the *considerations* on the *otherside* being *lessened* and neglected, seem as nothing, though they are never so *weighty* and considerable. But I shall be more particular in the account of these Deceptions.

Our Affections ingage us, by our *love* to *our selves*, or *others*; the former in the Instance of, 1. *Natural disposition*, 2. *Custom* and *Education*, and 3. *Interest*: the *latter*, in our over-fond *Reverence* to 4. *Antiquity* and *Authority.*

1. There is a certain *congruity* of *some* opinions to the particular tempers of some men: For there is a *complexion*, and *temperament* in the *mind*, as well as in the *body*: And the doctrines that are suited to the genius, and special disposition of the understanding, find easy welcom, and entertainment: whereas, *those* that are *opposite* to it, are rejected with an invincible contempt and hatred. On this account we find men taking in some particular Opinions with strange pleasure and satisfaction, upon their first proposals; when they are incurably barred up against others, that have the advantage of more reason to recommend them. And I have observ'd often, that even some Theories in Philosophy will not lie in some minds, that are otherwise very capable and ingenious: of which I take this to be a considerable Instance, That divers learned men profess, They cannot conceive a *Spirit* (or any being) without *extension*; whereas others say, They cannot conceive, but that whatever is *extended* is *impenetrable*,

and consequently *corporeal* ; which diversity I think, I have reason to ascribe to some difference in the natural temper of the mind.

2. But another very fatal occasion of our mistakes, is the great prejudice of *Custom* and *Education* : which is so unhappily prevalent, that though the Soul were never so truly ἄγραφον γραμματεῖον (as the Philosopher call'd it) an unwritten table in it self; yet this doth very often so scribble on it, as to render it incapable of other impressions: we judg all things by those *Anticipations* ; and condemn, or applaud them, as they differ, or agree, with our first Opinions. 'Tis on this account that almost every Country censures the *Laws*, *Customs*, and *Doctrines* of *every other*, as *absurd*, and *unreasonable*, and are confirm'd in their *own* follies beyond possibility of conviction. Our first Age is like the melted wax to the prepared Seal, that receives any impression ; and we suck in the opinions of our Clime and Country, as we do the common Air, without thought, or choice ; and which is worse, we usually sit down under those Prejudices of Education and Custom all our Lives after: For either we are loth to trouble our selves to examine the Doctrines we have long taken for granted, or we are scar'd from inquiring into the things that Custom and common Belief have made Venerable and Sacred. We are taught to think, with the *Hermit*, that the *Sun* shines no were but in our Cells, and that *Truth* and *Certainty* are confin'd within that Belief, in which we were first instructed. From whence we contract an obstinate adherence to the conceits in which we were bred, and a resolv'd contempt of all other Doctrines: So that what *Astrologers* say of our *Fortunes*, and the events of common life, may as well be said of the opinions of the most, that they are written in their Stars, having as little freedom in them as the effects of Destiny. And since the *Infusions* of *Education* have such interest in us, are so often appeal'd to as the dictates of *Truth*, and *impartial* Reason ; 'tis no wonder we are so frequently deceiv'd, and are so imperfect in our Knowledg. Another cause of which is,

3. The power that *Interest* hath over our Affections, and by them over our *Judgments*. When men are ingag'd by *this*, they can find Truth *any where* ; and what is *thought conve-*

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nient to be true, will at last be *believed* to *be so. Facilè credimus quod volumus.* So that I do not think, that the learned Assertors of vain, and false Religions, and Opinions, do always profess against their Consciences; rather their Interest brings their Consciences to their Profession; for this doth not only corrupt Mens Practise, but very often pervert their Minds also, and insensibly mislead them into Errours.

4. But our *Affections* misguide us by the respect we have to *others*, as well as by that we bear to our selves: I mentioned The Instances of *Antiquity*, and *Authority*. We look with a superstitious Reverence upon the accounts of past Ages, and with a supercilious Severity on the more deserving products of our own: a vanity that hath possest all times as well as ours; and the *golden* Age was *never present*. For as an inconsiderable Weight by vertue of it's distance from the Centre of the Ballance will out-weigh much heavier bodies that are nearer to it; so the most light, and vain things that are far off from the present Age, have more Esteem, and Veneration then the most considerable, and substantial that bear a modern date: and we account *that* nothing worth, that is not fetcht from a far off; in which we very often deceive our selves as that Mariner did, that brought home his Ship Fraught with common Pebbles from the Indies. We adhere to the Determinations of our Fathers as if their Opinions were *entail'd* on us; and our Conceptions were *ex Traduce*.

And thus while every Age is but an *other shew* of the *former*, 'tis no wonder that humane science is *no more* advanced above it's *ancient* Stature: For while we look on some admired Authors as the Oracles of all Knowledg, and spend that time, and those pains in the Study and Defence of their Doctrines, which should have been imploy'd in the search of Truth, and Nature; we must needs stint our own Improvements and hinder the Advancement of Science; Since while we are Slaves to the Opinions of those before us. Our Discoveries, like water will not rise higher then their Fountains; and while we think it such Presumption to endeavour beyond the *Ancients*, we fall short of *Genuine Antiquity*, Truth: unless we suppose them to have reach't perfection of Knowledg in spight of their own acknowledgments of Ignorance.

And now whereas it is obſerv'd, that the *Mathematicks* and *Mechanick* Arts have conſiderably advanc'd, and got the ſtart of other Sciences; this may be conſidered as a chief cauſe of it, That their Progreſs hath not been retarded by this reverential awe of former Diſcoveries: 'Twas never an Hereſie to out-limn *Apelles*, or to out-work the *Obelisks*: *Galilæus*, without a Crime, out-ſaw all Antiquity, and was not afraid to believe his Eyes, in reverence to *Ariſtotle* and *Ptolomy*. 'Tis no diſparagement to thoſe famous Optick Glaſſes that the Ancients never us'd them; nor are we *ſhy* of their Informations, becauſe they were *hid from Ages*. We believe the *polar* vertue of the *Loadſtone*, without a *Certificate* from the *dayes* of old, and do not confine our ſelves to the *ſole* conduct of the *Stars*, for fear of being *wiſer* than our *Fathers*. Had *Authority* prevail'd *here*, the *fourth* part of the Earth had been yet *unknown*, and *Hercules Pillars* had ſtill been the Worlds *Ne ultra*: *Seneca's Propheſie* had been an *unfulfil'd* Prediction, and one Moity of our Globes an *empty Hemiſphere*.

'Tis true, we owe much reverence to the Ancients, and many thanks to them for their Helps and Diſcoveries; but *implicitly* and *ſervilely* to ſubmit our Judgments to all Opinions, is inconſiſtent with that reſpect that we *may*, and *ought* to have to the *freedom* of our our own *Minds*, and the *dignity* of *Humane Nature*. And indeed (as the great Lord *Bacon* hath obſerv'd) we have a wrong apprehenſion of *Antiquity*, which in the common acception is but the *nonage* of the World. *Antiquitas ſeculi eſt juventus Mundi*: So that in thoſe Appeals, we fetch our Knowledg from the Cradle, and the comparative infancy of days. Upon a true account, the *preſent* Age is the *greateſt Antiquity*; and if *that* muſt govern and ſway our Judgments, *let multitude of days ſpeak*. If we would reverence the Ancients as we ought, we ſhould do it by imitating their Example, which was not *ſupinely* and *ſuperſtitiouſly* to ſit down in fond admiration of the Learning of thoſe that were before them, but to examine their Writings, to avoid their Miſtakes, and to uſe their Diſcoveries, in order to the further improvement of Knowledg: This they did; eſpecially the Philoſopher *Ariſtotle* uſed the moſt freedom in cenſuring and reproving the ſuppoſed Errors and Miſtakes of the

elder

elder Philosophers, of any that ever had that Name: And therefore there is the less reason why Men should make his Writing *Textuary*, and as it were *infallible*, without daring to use the liberty that he taught by his practice.

It was from this servile humour of idolizing some fortunate and fam'd Authors, that arose that silly vanity of *impertinent Citations*, and alledging *Authorities* in things, that neither require nor deserve them. The Man, no doubt, thought the saying to be Learning, and an Elegancy, *That Men have Beards, and that Women have none*; when he had quoted *Beza* for it: and that other aim'd to be accounted no mean Clerk, that could say, *Pax res bona est*, saith St. *Austin*: This folly, as ridiculous as it is, was once very common among those that courted the reputation of being Learned; and it is not quite worn out of use yet among the Vulgar of Scholars, though all the wiser have outgrown, and do despise it; And the rest will do the same, when they come to consider, how vain and inglorious it is, to have our Heads and Books laden, as Cardinal *Campeius* his Mules were, with old and useless Luggage. And if the magnificence of many Pretenders to Knowledg were laid open, it would amount to no more, than the old Boots and Shooes of that proud and expos'd Ambassadour. Methinks it is but a poor easie Knowledg that can be learnt from an Index; and a mean ambition to be rich in the Inventory of an others Treasure. *Authorities* alone make no *number*, unless evidence of Reason stand before them, and all the *Ciphers* of *Arithmetick*, are no better than a *single nothing*.

But I return to the consideration of *Antiquity*: If we impartially look into the *Remains* of *ancient* days, we shall find but little to justifie our so slavish a veneration of them: For if we take an account of the state of Science from the beginning, and follow the History of it through the most famous Times, we shall find, that though it hath often changed its Channel, removing from one Nation to another; yet it hath been neither much *improved*, nor *altred*, but as Rivers are in passing through different Countries, *viz.* in *Name*, and *Method*: For the succeding Times subscribing to, and copying out those that went before them, with little more than verbal

Diversity, Knowledg hath still been *really* the same poor and mean Thing, though it hath appeared in pompous Cloathing, and been dignified by the services of many great and renowned Names. The *Grecian* Learning was but a Transcript of the *Chaldean* and *Ægyptian*; and the *Roman* of the *Grecian*: And though those former Days had, no doubt, many great Wits, and *those* that made noble Discoveries; yet we have reason to think that the most considerable and most worthy of them, have perisht and are forgotten. For as the forementioned great Man, the Lord *Bacon* hath observ'd, *Time*, as a *River*, brings down to us what is more *light* and *superficial*, while the Things that are more *solid* and *substantial* are sunk and lost.

And now after *all this*, it will be requisite for me to add, That I intend not these Remarques in favour of any *new* Conceits in *Theology*, to gain credit to *such* by disparaging Christian Antiquity: No, *Here* the *old* Paths are undoubtedly *best*, *quod verum id prius*: And I put as much difference between the pretended *New Lights*, and *Old Truths*, as I do between the *Sun* and an evanid *Meteor*: Though I confess in *Philosophy* I am a *Seeker*. *Divine Truths* were most pure in their *Beginnings*; they were born in the *fulness* of time; and, (as some say the Sun was Created) in their *Meridian* Strength and Lustre: But the *Beginnings* of *Philosophy* were in a very *obscure Dawn*, and perhaps 'tis yet *scarce Morning* with it. And therefore what we cannot find among former Inquirers, we are to seek in the Attempts of more *Modern Men*, and in the Improvements of nearer Ages: And not be discouraged by the Old Law, *Nil dictum quod non dictum prius*. For as to *Knowledg*, there is no doubt but there are many things *new* under the *Sun*, and *this* Age hath shewn many *Novelties* even in the Heavens above, *&c.*

I have thus shewn thee How our *Senses* and *Affections* mislead our Understandings, and so are great occasions of our Ignorance and Errors; to which I may add,

III. That the *Understanding* more immediately contributes to *its own* Deceptions, through its *Precipitancy*, and *hast* in *concluding*. *Truth* is not to be attained, without much *close*

and

and *severe* inquiry: It is not a *wide Superficies*, easie to be seen, but like a *Point* or *Line* that requires *Acutness* and *Intention* to discover it; which is the more difficult, because it is so mingled with *Appearances* and *specious* Errors, like the *Silver* in *Hiero*'s Crown of Gold; or rather like the Grains of *Gold* in a *Mass* of *baser* Mettals; It requires much *Care*, and *nice Observation* to extract and separate the *precious Oar* from so much *vile Mixture*; so that the *Understanding* must be *patient*, and *wary*, and *thoughtful* in seeking Truth; It must go step by step, and look every way, and regard many Things: It must distrust Appearances, and be shy of Assent, and consider again and again before it fixeth. This Method is necessary to the attainment of Knowledg; but the *Mind* is *generally* indisposed to so much Labour and Caution. It is *impatient* of *suspence*, and *precipitant* in concluding; *averse* to *deep* Meditation, and ready to *catch* at every *Appearance*: And hence also it is that we embrace Shadows of Fancy and Opinion, and miss of true and substantial Knowledg.

Having now given *Instances* of the *Imperfection* of our present Knowledg, and shewn some of its Causes, which are further evidence of it; I come to offer a few Considerations on the whole, against *Dogmatizing*, and *Confidence* in uncertain Opinions. As,

1. *Confidence* in *Philosophy*, and Matters of *Doubtful Speculation* betrays a grosser, and more stupid sort of *Ignorance*; For 'tis the first step of Knowledg to be sensible that we want it: The most exercised Understandings are most conscious to their Imperfections; and he that is sensible of the frequent failings of his Judgment, will not lean with much trust, and assurance on that which hath so often deceived him, nor build the Castle of his *intellectual* Security in the Air of Opinions: But on the other side, the shallow, unthinking Vulgar, are sure of all things, and bestow their *peremtory*, *full* assent on every slight appearance. *Knowledg* is always *modest* and *wary*; but *Ignorance* is *bold* and *presuming*, as *Aristotle* hath observ'd of the *confidence* and *forwardness* of Youth. Thus those that have always liv'd at home, and have never seen any *other* Country, are confidently perswaded that their *own* is the *best*;

whereas

whereas they that have travel'd, and obſerv'd other Places, ſpeak more coldly and indifferently of their native Soils; and ſo thoſe confined Underſtandings that never looked beyond the Opinions in which they were bred, are excedingly aſſur'd of the Truth, and comparative excellency of their own Tenants; when as the *larger* Minds that have travail'd the divers Climates of Opinions, and conſider'd the various Sentiments of inquiring Men, are more *cautious* in their *Concluſions*, and more *ſparing* in *poſitive* Affirmations. And if the Dogmatiſt could be perſwaded to weigh the *Appearances* of Truth and Reaſon, that are in many other Opinions that he counts *unreaſonable* and *abſurd*, this would be a means to *allay*, if not to *cure* his Confidence.

2. *Dogmatizing* in things uncertain, doth commonly inhabit with *untamed Paſſions*, and is uſually maintain'd upon the *obſtinacy* of an *ungover'd* Spirit. For one of the firſt Rules in the *Art* of *Self-Government*, is, to be *modeſt* in Opinions: And *this Wiſdom* makes Men *conſiderate* and *wary*, diſtruſtful of their own Powers, and jealous of their Thoughts: He that would *rule* himſelf, muſt be *circumſpect* in his Actions; and he that would be *ſo*, muſt not be *haſty*, and over-*confident* in his Concluſions. 'Tis *Pride*, and *Preſumption* of ones ſelf that cauſeth ſuch forwardneſs and aſſurance; and where thoſe *reign*, there is neither *Vertue* nor *Reaſon*; No *regular Government*, but a miſerable *Tyranny* of *Paſſion* and *Self-will*.

3. *Confidence* in Opinions, is the great diſturber both of our *own Peace*, and of the *quiet* of other Men. He that *affirms* any thing *boldly*, is thereby ingaged againſt every one that oppoſeth it; He is *concern'd*, and *undertakes* for his Tenent, and muſt *fight* his way: He confronts every different Judgment, and quarrels all Diſſenters; He is angry that others do not ſee *that*, which he preſumes is ſo clear; he clamours and reviles; He is ſtill *diſputing*, and ſtill in a ſtorm: He cannot bear a *Contraction*, nor ſcarce a *Suſpence* of Judgment. So that his Peace is at every ones Mercy, and whoever will croſs his ſaying, throws him into the Fire, and deſtroys his Quiet: And ſuch a Man need not be more miſerable. On this account the *Stoicks* affected an *indifferency* and *neutrality* in all Things, as the only means to that *freedom* from *Paſſion* and *Diſturbance*, which

which they sought: and if there be any repose attainable by the Methods of Reason, there is nothing so like to afford it, as *unconcernment* in doubtful Opinions. The *contrary* Zeal and assurance, as it robs every Man of his *private* happiness, so hath it destroyed the *Peace* of *Mankind:* It hath made the World an *Aceldama*, and a *Babel*. For *this* is the ground of all the *Schisms*, and *strivings* of Sects, that have fill'd our Air with Smoke and Darkness; yea, and kindled the fierce Flames that have consumed us. Every vain *Opiniator* is as much *assured* as if he were *infallible*; His Opinions are *Truths*, *certain Truths*, *Fundamental* Ones; and the *contrary* Doctrines *Heretical* and *Abominable*. Hence arise *Disputes*, *Hatreds*, *Separations*, *Wars*, of which we have seen, and yet see very much; and God knows how much more we may: Of all which Mischiefs here is the Gronnd, *viz.* Mens *presumptions* of the *certainty* of their *own Conceits* and *Ways:* and could they but be induced to be *modest* in them, and to look on them with the eye of less assurance, it would abate their *Heats* and *Animosities*, and make way for Peace, and charitable Agreement in the things that are *undoubtedly True*, and *Good*.

4. *Confidence* in *Opinions* is *ill Manners*, and an affront to all that differ from us; For the Dogmatist chargeth every one with *Ignorance* and *Error*, that subscribes not his Saying. In effect, he gives the lie to whosoever dares dissent from him; and declares that his Judgment is fittest to be the *Intellectual* Standard. This is that Spirit of *Pride* and *Rudeness*, that saith to every different Apprehender, *Stand off*, I am more *Orthodox* than thou art; a Vanity that is worse than any simple Error.

5. *Dogmatizing*, and Confidence in doubtful Tenents, holds the Opiniator fast in his Misconceits and Errors. For he that is confident of all things, is unavoidably deceiv'd in most; and he that *assures* himself he *never* errs, will always err: His Presumptions will defeat all attempts of better Information. We never seek for *that* which we think we *have already*, but reject those Aids that make promise and offer of it. And he that huggs *Vanity* and *Falshood*, in the confidence of undoubted *Truth* and *Science*, is commonly intractable to the Methods

thods that should rectifie his Judgment. *Ignorance* is far sooner cured, than *false conceit* of *Knowledg:* and he was a very wise Man that said, *There is more hope of a Fool, than of him that is wise in his own Eyes.*

6. Dogmatizing shews *Poverty*, and *narrowness* of Spirit: There is no greater *Vassallage*, than that of being enslaved to Opinions. The *Dogmatist* is pent up in his Prison, and sees no Light but what comes in at those Grates. He hath no *liberty* of *Thoughts*, no *prospect* of various *Objects:* while the *considerate* and *modest* Inquirer, hath a *large* Sphere of Motion, and the satisfaction of more *open* Light; He sees *far*, and injoys the pleasure of surveying the *divers* Images of the Mind. But the *Opiniator* hath a *poor shrivel'd* Soul, that will but just hold his little Set of Thoughts: His Appetite after Knowledg, is satisfied with his few *Mushromes*, and neither knows nor thinks of any thing beyond his Cottage and his Rags.

I might say a great deal more to the shame of this folly, but what I have writ will be *enough* for the Capable and Ingenious; and much *less* would have been *too much* for others.

And now when I look back upon the main Subject of these Papers, it appears so *vast* to my Thoughts, that me-thinks I have drawn but a *Cockle-shell* of Water from the *Ocean:* Whatever I look upon, within the *Amplitude* of *Heaven* and *Earth*, is evidence of Humane *Ignorance:* For all things are a *great Darkness* to us, and we are *so* to our selves: The *plainest* things are as *obscure*, as the most *confessedly mysterious*; and the *Plants* we tread on are as much *above* us, as the *Stars* and *Heavens:* The things that *touch* us, are as *distant* from us as the *Poles*, and we are as much *Strangers* to *our selves*, as to the People of the *Indies.* On review of which, me-thinks I could begin anew to represent the *imperfection* of our *Knowledg*, and the *vanity* of *bold Opinions*, which the Dogmatists themselves *demonstrate*, while each Disputer is *confident*, that the *others confidence* is vain, from which a third, with more reason, may conclude the *same* of the confidenee of *both:* And one would think there should need no more to bring those assured Men to modest Acknowledgments, and more becomming Temper than *this*, That there is nothing about which the

Reason

Reason of Man is capable of being employed, but hath been the Subject of *Dispute*, and *diverse* apprehension: So that the Lord *Montaigne* hath observ'd, *Mankind is agreed in nothing, no not in this, That the Heavens are over us*; Every Man almost differs from another, yea and every Man from himself; and yet every one is assured of his own *Schemes* of conjecture, though he cannot hold that Assurance but by this *proud* Absurdity, That *he alone is in the right, and all the rest of the World mistaken.* I say then, there being so much to be produced both from the *natural* and *moral* World, to the *shame* of *boasting Ignorance*; I cannot reckon of what I have said but as an *imperfect* Offer at a Subject, to which I could not do right, without discoursing all Things: On which account I had resolv'd once to suffer this Trifle to pass out of Print and Memory: But then considering, that the *Instances* I had given of humane *Ignorance* were not only *clear* ones, but *such* also as are not *ordinarily* suspected; from whence to our shortness in other things, 'tis an easie Inference; I was thence induced to think it might be useful to promote that temper of Mind that is necessary to true Philosophy and right Knowledg.

OF
SCEPTICISM
AND
CERTAINTY.

Essay II.

Essay II.

OF
SCEPTICISM and CERTAINTY:
In a short Reply
To the Learned Mr. *Thomas White*.

To a Friend.

SIR,

I Here send you a Supplement to the former Essay. About two years after my *Vanity* of *Dogmatizing* was first printed, there appeared a Book written in Latin against it, which had this Title, *SCIRI, sive scepties & scepticorum a jure Disputationis exclusio.* The Author was that Learned Man, who hath publisht so many Writings, and is so highly celebrated by Sir *Kenelm Digby*; especially famous for his Tract *de Mundo:* He calls himself sometimes *Thomas ex Albiis East Saxonum*; in other Writings, and particularly in *this*, *Thomas Albius:* His English Name is *Thomas White*, a Roman Catholick, and famed Writer for that Church, though censured for some of his Doctrines at *Rome*. I writ a civil Answer to his Book, which was annext to the *Vanity of Dogmatizing*, reprinted 1665.

That Answer was in English, because the Discourse it defended was so; and I did not think the Matter worth the Universal Language: Besides, I was induced to reply in that Tongue,

Tongue, by the Example of a Noble Philosopher, one of the great Ornaments of his Age, and Nation, who had then newly answer'd a Latin Book, written by one *Linus* against him, in English. About the same time that my Reply was printed, his *SCIRI* came forth again in our Language, whether translated by himself, or any Disciple of his, I do not know; The Title was, *An Exclusion of Scepticks from all title to Dispute: being an Answer to the Vanity of Dogmatizing: by Tho. White*. Now because there was nothing of Reply in that new Edition of his Book, I thought to have concerned my self no more about it: but having made you a promise of some Notes concerning *Scepticism* and *Certainty*, I have thought fit to treat of those Matters by way of further Answer to that Learned Man.

He principally insists on three things. (1.) The Charge of *Scepticism*. (2.) The Accountableness of those Philosophical Difficulties I have mention'd, as things *not yet resolv'd*. And, (3.) The Defence of *Aristotle*. The *first* is the Subject for which I stand ingag'd to you; and the *second* belongs to it, and will be a very seasonable, if not necessary Supplement to the Essay against *Confidence in Philosophy*. But for the *third*, I shall refer you to what I have said in my other Answer, and in my Letter concerning *Aristotle*; being not willing to meddle any further in Affairs of that nature.

I. The charge of **Scepticism** seems to be the main thing: For, besides that it makes up the Title, the Author hath been pleas'd to write a solemn Warning to the Youth of the Universities, on the occasion of my Book, which he calls *Ulcus Glanvillanum*, in the first page of his Preface; and declares this pretended *Scepticism* of mine to be the occasion of his ingagement, in the first paragraph of his Discourse.

Now because a great and celebrated Philosopher, with whom I am not fit to be nam'd, is brought in as the Reviver of this deadly Scepticism, which I am supposed to endeavour to advance after him; I shall repeat the whole Passage, that I may the better vindicate both him and my self against this Objection; and treat a little of this so common Imputation, which is almost every where alledg'd against all *Free Philosophers*,

phers, who dare think or say any thing that *Aristotle* hath not taught. The Learned Man Objects thus, *p.* 1.

'*Scepticism* born of old by an unlucky miscarriage of Na-'ture, for her own credit carried off the Tongues of the Elo-'quent, where it had long been foster'd and buried by the 'steadiness of Christian Faith; this Monster snatcht from the 'Teeth of Worms, and Insects, *Peter Gassendus*, a Man of a 'most piercing Sagacity, of neat and copious Eloquence, of 'most pleasing behaviour and wonderful diligence, by a kind 'of Magick, hath endeavour'd to restore again to Life. He, 'a Person (which is the strangest of all) most tenacious of 'Catholick Faith, and never suspected guilty of mischievous 'Tenents: whereas, yet, this Scepticism is the Mother of 'infinite Errors, and all Heresies, and that very *seducing Phi-'losophy, and vain Fallacy* which the Saints warned by the 'Apostles have taught us to beware of. Her this Man, other-'wise eminent, in his paradoxical Exercitations against the 'Aristotelians, hath dared to expose, not vailed as before, 'and wandring like a Quean in the dark, but bold-fac'd, and 'painted, to the Multitude, and Market-place.

'By his example, the Author of the *Vanity* of *Dogmati-'zing*, hath produc'd her amongst us, beauteously trickt up, 'in English: He too a great Master of Wit and Eloquence; 'nor indeed are vast Mischiefs to be dreaded from vulgar 'Heads. *This is the occasion of my undertaking.*———

This is the Charge; but the severe imputation is sweetned by many very kind words of commendation, which are most justly due to the renowned *Gassendus*, but given *gratis*, and undeservedly to the Author of the Vanity of Dogmatizing. In answer to this charge, I shall set down my Thoughts of *Scepticism* and *Certainty*, Subjects well worth considering.

The word *Scepticism* is derived from Σκέπτομαι, which signifies to *speculate*, to *look about*, to *deliberate:* An ancient Sect of Philosophers were hence call'd Σκεπτικοὶ, *Scepticks*; as also Ζητητικοὶ, *Seekers*; Ἀπορητικοὶ, *Doubters*; and Πυῤῥώνειοι, *Pyrrhonians*, from *Pyrrho* the first noted Author of this Sect. This *Pyrrho* lived about the time of *Alexander* the Great, and was born at *Elis:* He was at first a Painter; some say an *ill one*; and yet he had better have so continued, for his

his *Philosophy* was worse than his *Painting*. He seems to me, according to the account we have of him, to have been a gross and humoursome Fanatick; especially if that be true that is related by *Laertius*, That he shun'd and heeded nothing, and would not step aside out of the way for Waggons, Precipices, or Dogs, so that he was follow'd and look'd after like an Ideot, and a Child, then whom his Actions were more stupid: Besides which testimony, we have a worse character of him from *Aristocles*, χρηστὸν οὐδὲν οὔτε εὗρεν—, *viz.* That he neither invented, nor writ any thing that was good, but railed both at Gods and Men. And yet it should seem, by the honour his Country did him, that he was not so very a Sot as some thought, and as divers Passages in the Story of his Life speak him: For he was made High Priest, and great Immunities and Priviledges given to Philosophers for his sake. But I have nothing to do with the Story of his Life: His Disciples were many, the most eminent of them reckon'd by *Laertius*; but none hath left so exact an account in writing of the *Sceptick Doctrines*, (if they may be so call'd) as *Sextus Empiricus*, one much later than those Sectators of *Pyrrho*. The chief ground of *Scepticism* he saith, is this, παντὶ λόγῳ λόγος ἴσος ἀντίκειται, That every reason hath an equal one opposite to it: So that they gave no assent to any thing. They allow'd *Appearances*, but would not grant, that things *really* are in themselves as they appear to our Senses: or that we can by our Reasons judg any thing truly, and certainly of them: That there is nothing *fair* or *foul*, *just* or *unjust*, nothing *true* or *real* in any thing; as *Laertius* speaks of the belief of *Pyrrho*. And therefore their Phrases were, οὐ μᾶλλον, that is, Not more this than that, τάχα, καὶ οὐ τάχα; perhaps, and not perhaps; *viz.* perhaps it is, perhaps it is not. Ἐπέχω, I suspend, οὐδὲν ὁρίζω, I determine nothing; οὐ καταλαμβάνω, I comprehend not. And for fear they should be Dogmatical, even in these Phrases, *Empericus* saith, That they do only declare their present Affections, expressing how things appear to them, without determining any thing, and even not determining so much as this, I *determine nothing*.

Now besides the professed Disciples of this Sect, divers other ancient Philosophers spoke doubtfully, and unresolvedly of

of things: and *Cicero* in *Licullus* saith thus of *Empedocles*; *Empedocles, ut interdum mihi furere videatur, abstrusa esse omnia, nihil nos sentire, nihil cernere, nihil omnino quale sit posse reperire.* *Sextus Empiricus* mentions divers others, who it seems were thought to be *Scepticks*, or very near them; as *Heraclitus*, because he taught that Contraries are in the same thing: *Democritus*, for denying Hony to be sweet or bitter: The *Syrenaick* Sect, holding that only the Affections are comprehended: *Protagoras*, for making the Phænomena *particular* to every single Person. But all these he shews to have been *Assertors*, and very different from the *Pyrrhonian* Sect. He inquires also of the *Academick* Philosophy, how it agreed with, or disagreed from the *Sceptick*. These Philosophers were reputed anciently, and by some ever since thought to be too much addicted to that way. But *Sextus* clears them from it, beginning with *Plato* the Founder of the first School, of whom he saith, That though in his *Gymnasticks*, where *Socrates* is brought in deriding the Sophists, he hath the Sceptick, uncertain Character; yet in declaring his Opinion, he was a *Dogmatist*; particularly in his Doctrines of *Ideas*, *Providence*, the *preference* of a *Life* of *Vertue*: Which if *Plato* assent to as existent, he affirms *dogmatically*; if as *probable*, he differs from the *Sceptick*, in preferring one Opinion before another. Those of the *New Academy* say all things are *incomprehensible*, in which, saith *Sextus*, they differ from us, because they *assert this*; but we *do not know* but that they may be comprehended. They differ also in asserting Good, and Evils, and that some things are credible, others not; whereas the *Pyrrhonians* count all to be equal. To this purpose he speaks of them: But for the *middle Academy* founded by *Arcesilaus* he saith, that *that* Philosopher's *Institution*, and *theirs* were almost the same, in that *Arcesilaus* asserted nothing of the *existence*, or *non-existence* of things, not preferring one Opinion before another, but in all things *suspending*. Which he did to make tryal of his Disciples, whether they were capable of the Doctrine of *Plato*, which he taught to his Friends.

Thus that famous Sceptick doth honour to the memory of those Ancients, by endeavouring to take what he thought to

be credit from them, which indeed was ever a disgrace, and ought to be so esteemed still. For those *Pyrrhonians*, that were of the right strain, seem to me to have been a sort of *conceited Humorists*, that took a pride in being singular, and venting strange things; opposing all knowledg, that they might be thought to have the most, and to have found out that universal *ignorance*, and *uncertainty*, which others could not see far enough to descry. Which way of pretended Philosophy, as it gratified their pride, so it serv'd their malice and ill-nature, which delights much in the Spirit of Contradiction, and contempt of other Men. This they shew'd in great degree according to *Laertius*, who saith, εὐήθεις δὲ τοὺς δογματικοὺς ἀπέφαινον; They accounted all Fools that were not of their own Party. So that they were in no wise to be reckon'd as Philosophers; ἀναιροῦσιν δὲ γε δὴ τὰς τοῦ φιλοσοφεῖν ἀρχὰς, as *Aristocles* speaks in *Eusebius*; For they pluckt up the Principles of Philosophy by the Roots. And indeed their *doubting* and *suspension* was not in order to the forming a *surer* Judgment, but a resolution to sit down for ever in despair of Knowledg: And therefore they were very improperly call'd Ζητητικοὶ, *Seekers*, since their great Principle was, that nothing was to be found. Upon the whole, it was not without cause that *Cicero*, *Aristocles*, and other sober Philosophers spoke of their way as down-right madness; and we have great reason to believe so of the Founder of the Sect, if that be true which is related by *Laertius*, and others, of his washing a Sow, and running into the *Forum* with a Spit of Meat in his hand after the Cook that had offended him; a thing very unbecoming the Professor of the so much talkt of ἀταραξία, or freedom from disturbance. And his unconcernment another time was as sottish, when he past on, and would not help or take notice of his Friend *Anaxarchus*, when he was fallen into a Ditch; which was *bruitish stupidity*, rather than *Philosophical Indifference*. And indeed this Sect indeavoured to divest themselves of Humane Nature, as *Pyrrho's* answer implied, when he was upbraided for avoiding a Dog, *viz.* that 'twas hard wholly to put off Man; and so they were destructive to the Societies, and all the Interests of Mankind: This I say upon the supposition that they were in *earnest*, and *believ'd*

liev'd themselves; but I incline to think, that they were only *humoursom*, and *conceited* Fellows; rather than I will say that they were absolutely distracted.

Thus you see I could revile against the *Scepticks*, as well as my Antagonist; but letting further censure of them pass, I might take notice on this occasion, what odd extravagant People have of old had the name of *Philosophers*, as if *those* Ages (as the Turks *now*) had a reverence for Madmen: For many of their Actions and Opinions were very wild freaks of Fancy and Humour, and would gain Men in these days (as foolish and bad as they are) no better name, than that of *Lunaticks*, or *Bedlams*. This will appear to any one that shall impartially survey the Histories of their Lives, if those Accounts were true that are given of them. But indeed there is reason enough to doubt *that*: For the Relations we have of old times are usually very *fabulous* and *uncertain*, and where the *Grecians* were concern'd as much as any where, for they had the same Character given them, that the Apostle bestows upon the *Cretians*; *Græcia mendax*. Which among other things shews, how little reason there is we should be superstitiously fond of the broken, dubious, imperfect Remains of those days. But methinks those Philosophers should be greater Men, than they were made in those Histories of their Lives and Doctrines, or else one may justly wonder how their Names come down to us with so much Renown and Glory. But to return to more particular Discourse of the *Scepticks*.

Besides Those anciently, that had *that* name without just ground sometimes affixt on them, several worthy *Moderns* have suffer'd under the imputation: and indeed by some all Men are accounted Scepticks, who dare dissent from the *Aristotelian* Doctrines, and will not slavishly subscribe all the Tenents of that *Dictator* in *Philosophy*, which they esteem the only true and certain Foundations of Knowledg: This learned Man seems to be one of those, for the great *Gassendus* is charged with so much Scepticism on this account, that he writ an Exercitation against *Aristotle*, p. 2. and *those that slight* Aristotle's *Grounds* (saith our Author in his Preface to the Universities) *must of necessity, being always in quest of Principles, ever fall short of Science*. *Aristotle*'s Works it

seems

seems are the infallibe *Canon* of Truth and Certainty; in him are hid all the Treasures of natural Wisdom and Knowledg; and there is no name given under Heaven, by which we can be saved from *Scepticism*, and everlasting *uncertainty*, but *his*. If this be *so*, all the *modern Free* Philosophers must be *Scepticks*, and there is no help: and the Author of the *Vanity* of *Dogmatizing* hath no way to escape the imputation; nor indeed, (if this be all) hath he any concern to avoid it. But the Learned Man may be remembred, that in one respect they are not *Scepticks*, being *confident* in this belief, that the *Principles* of *Aristotle* are not such *Certainties*, but that 'tis possible, succeeding Mankind may sometime or other find error and imperfection in them; and discover (if it have not been done already) that they are not the infallible Measures of Truth and Nature.

But the *Free Philosophers* are by others accounted *Scepticks* from their way of enquiry, which is not to continue still poring upon the Writings and Opinions of Philosophers, but to seek Truth in the Great Book of Nature; and in that search to proceed with wariness and circumspection without too much forwardness in establishing Maxims, and positive Doctrines: To propose their Opinions as *Hypotheses*, that *may probably* be the true accounts, without peremptorily affirming that *they are*. This, among others, hath been the way of those Great Men, the Lord *Bacon*, and *Des Cartes*; and is now the method of the *Royal Society* of *London*, whose Motto is, **Nullius in Verba**. This is *Scepticism* with some; and if it be so indeed, 'tis such Scepticism, as is the only way to sure and grounded Knowledge, to which confidence in uncertain Opinions is the most fatal Enemy. Nor doth the Learned Man accuse me of any more than *this*, in his Preface, in which he thus speaks. 'I am not angry with the Man, who with a great 'deal of Wit, and an unfordable stream of Eloquence (*excessive courtesie*) which will ripen with his years, prosecutes 'what he proposeth to himself, and takes for a truth, not 'without some savour of modesty: For neither doth he derogate from Faith the power of teaching its Tenents, nor 'disclaim all hopes of attaining Science hereafter through a 'laborious amasement of Experiments.—— Here I am absolv'd

solv'd from being a *Sceptick*, in the ill sense; For I neither derogate from Faith, nor despair of Science: and the Opinions of those of that character are directly destructive of the one, and everlasting discouragements of the other. Or, if I should affirm that I despair of Science, strictly and properly so call'd, in the Affairs of Philosophy and Nature; If I should say, we are to expect no more from our Experiments and Inquiries, than great likelyhood, and such degrees of probability, as might deserve an hopeful assent; yet thus much of diffidence and uncertainty would not make me a *Sceptick*; since *They* taught, That no one thing was *more probable* than an *other*; and so with-held assent from all things.

So that upon the whole I cannot but wonder, that this Philosopher, who seems to be so concern'd for the advancement of Knowledg, should oppose me in a Design that hath the same end: only we differ in the Means and Method; For he thinks it is best promoted by perswading, that *Science* is not *Uncertainty*; and I suppose that Men need to be convinc'd, that *Uncertainties* are not *Science*. Now the progress of Knowledg being stopt by extreme Confidence on the one hand, and Diffidence on the other; I think that both are necessary, though perhaps one is more seasonable: For to believe that every thing is certain, is as great a disinterest to Science, as to conceive that nothing is so: Opinion of Fulness being, as my Lord *Bacon* notes, among the Causes of Want. So that after all, we differ but in this, That the Learned Man thinks it more sutable to the necessities of the present Age, to depress *Scepticism*; and it may be, I look on *Dogmatizing*, and confident Belief as the more dangerous and common Evil: And indeed between the Slaves of Superstition and Enthusiasm, Education and Interest, almost all the World are *Dogmatists*; while Scepticks are but some more desperate Renegado's, whose Intellects are either debauched by Vice, or turn'd out of the way by the unreasonable Confidence of vain Opiniators. In opposing whose Presumptions, I designed also against the neutrality of the Scepticks; and did not conceited Sciolists ascribe so much to their Opinions, there would be no need of *SCIRI'S*, or Perswasives to easie and peremptory Assents; which indeed have more need of Restraints than Incentives;

since

since 'tis the nature of Man to be far more apt to confide in his Conceptions, than to distrust them; and 'tis a question whether there be any Scepticks in good earnest. So that I am so far from deserving Reproof from the Adversaries of Intellectual Diffidence, that were there reason for either, I might expect Acknowledgments: For Confidence in Uncertainties is the greatest Enemy to what is certain; and were I a *Sceptick*, I would plead for *Dogmatizing*; the way to bring Men to stick to nothing, being confidently to perswade them to swallow all things. For among a multitude of things carelesly receiv'd, many will be false, and many doubtful: and consequently a mind not wholly stupid will some time or other find reason to distrust and reject some of its Opinions: Upon review of which, perceiving it imbraced Falshoods for great Certainties, and confided in them as much as in those it yet retains, it will be in great danger of staggering in the rest, and discarding all promiscuously: Whereas if a Man proportion the degree of his Assent, to the degree of Evidence, being more sparing and reserv'd to the more difficult, and not throughly examin'd Theories, and confident only of those that are distinctly and clearly apprehended; he stands upon a firm bottom, and is not mov'd by the winds of Fancy and Humour, which blow up and down the conceited Dogmatists: For the Assent that is difficultly obtain'd, and sparingly bestow'd, is better establish'd and fixt, than that which hath been easie and precipitant.

Upon the whole Matter it appears, that this Learned Person had no cause to write against me as a *Sceptick*: And I somewhat the more wonder at it, because I find such things attributed to those, he is pleas'd to call by that name, that no way agree with the Way and Spirit of those Philosophers, whose genius I recommend and desire to imitate: On which account I thought he had some other notion of Sceptick than was usual; and casting mine eye over his late *Purgation* presented to the *Cardinals* of the *Inquisition*, I found that *his Scepticks* were some of the *Modern*, *Peripatetical Disputers*: These, it seems by their many complaints against his Writings, had obtain'd a general condemnation of them from the Pope and Consistory of Cardinals; whom therefore in his Appeal to the said Cardinals

dinals he accuseth of Ignorance, Corruption of the *Aristotelian* Doctrines, and Tendency to Heresie and Atheism: And that these are the Scepticks he means, appears from the Preface against me, and divers other Passages of his Book: So that 'tis yet more wonderful, that *Gassendus*, and the *Author* of the Vanity of Dogmatizing, should be call'd by a Name, which he bestows upon those of so different a temper.

And thus of that charge of *Scepticism*, with which he begins as the occasion of his writing: Having premised which, he endeavours to lay the sure Foundations of Science, and to establish Certainty in Knowledg. But what-ever imperfections there are in that pretended demonstration, I shall not for the present take notice of them; but only observe, that this Gentleman is the Author of that *Science*, *Demonstration*, and *Self evidence*, of which *M. Sargeant*, a late controvertial Writer for the Roman Church, makes such boasts of; and here are his Grounds: Which those learned Men, that are concern'd with him, may if they please, when they have nothing else to do, examine.

Having said thus much of *Scepticism*, and the *Scepticks*, I shall enquire a little into the matter of *Certainty*, a subject of both difficulty and importance.

It is taken either (1.) for a firm Assent to any thing, of which there is no reason of doubt; and this may be call'd *Indubitable* Certainty; or (2.) for an absolute Assurance, that things are as we conceive and affirm, and not possible to be otherwise, and this is *Infallible* Certainty.

In the first of these *Des Cartes* lays his Foundations: I cannot doubt, but *I think*, though nothing should be as I conceive; and there I cannot suspect neither, but that I *my self, that think, am*. I am as sure that I have Idæas, and Conceptions of other things without me, as of God, Heaven, Earth, *&c.* Thus far that Philosopher is safe, and our Assent is full; and it is so in this likewise, That *we can compound*, or disjoin those Images by affirming, and denying; and that we have a faculty of *Reasoning*, and inferring one thing from another: So much as this we clearly perceive, and feel in our selves, what-ever uncertainty there may be in other matters. To these we give a resolv'd and firm Assent, and we have not the

the least reason of doubt here. Besides which Principles we find others in our minds that are more general, and are us'd and supposed by us in all our Affirmations and Reasonings, to which we assent as fully, such are these: *Every thing is, or is not:* A thing *cannot be and not be, in the same respects. Nothing hath no Attributes: What we conceive to belong, or not to belong to any thing, we can affirm, or deny of it.*

These are the Principles of all Propositions, and Ratiocinations whatsoever: and we assent to them fully, as soon as we understand their meaning, to which I add this great one more, *That our Faculties are true, viz.* That what our understandings declare of things *clearly* and *distinctly perceiv'd* by us, is truly so, and agreeing with the realities of things themselves. This is a Principle that we *believe* firmly; but *cannot prove*, for all proof, and reasoning supposeth it: And therefore I think *Des-Cartes* is out in his method; when from the *Idæa's* he endeavours to prove that *God is*, and from *his* Existence that our *Faculties are true:* When as the *truth* of our *Faculcies* was presupposed to the proof of God's Existence; yea, and to that of our own also. So that, that great Man seems to argue in a Circle. But to let that pass; This we constantly assent to without doubting, That our Faculties do not always delude us, That they are not mere Impostors and Deceivers, but report things to us as they are, when they distinctly and clearly perceive them. And so this may be reckon'd one of the prime certain Principles, and the very Foundation of Certainty in the first sense of it.

These and such like Principles result out of the nature of our Minds: But,

2. There are other Certainties arising from the evidence of Sense: As, That there is *Matter*, and *Motion* in the World: That Matter is *extented divisible* and *impenetrable:* That Motion is *direct*, or *oblique:* That Matter, and Motion, are capable of great variety of *Modifications* and *Changes*. We learn that *these*, and many other such things are so, from *Sense*, and we nothing doubt here; although the Theory and Speculative consideration of those Matters be full of difficulty, and seeming contradiction. In these our Assent is *universal* and *indubitable:* But in many particular cases, we are not

assured of the report of our Senses; yea, we dissent from, and correct their Informations, when they are not in their due Circumstances, of *right Disposition*, *Medium*, *Distance*, and the like: and when they pronounce upon things which they cannot judg of: on which account, though our Senses, and the Senses of Mankind do represent the Earth as *quiescent*: Yet we cannot from thence have assurance that it doth *Rest*, since Sense cannot judg of an even and regular Motion, when it self is carried with the movent; so that though it should be true that the Earth moves, yet to Sense it would appear to rest, as now it doth; as I have discours'd elsewhere. But when the Senses are exercised about their right Objects, and have the other Circumstances that are requisite, we then assent without doubting. And this fullness of assent is all the certainty we have, or can pretend to; for after all, 'tis possible our Senses may be so contrived, that things may not appear to us as they are: But we fear not this, and the bare possibility doth not move us.

3. There are Certainties arising from the *Testimony* of others. This in ordinary cases is very doubtful, and fallacious, but again in some it is *indubitable*. As when the Testimony is general, both as to time and place uninteressed, full, plain, and constant, in matters of Sense and of easie Knowledg: In such circumstances as these, the evidence of Testimony is no more doubted, than the first Principles of Reason or Sense. Thus we believe, without the least scruple about it, That there are such places as *Rome*, and *Constantinople*, and such Countries of *Italy* and *Greece*, though we never saw them; and many other Historical Matters, which our selves never knew. The Foundation of which assurance is this Principle, That *Mankind cannot be supposed to combine to deceive, in things, wherein they can have no design or interest to do it.* Though the thing have a remote possibility, yet no Man in his Wits can believe it ever was, or will be so: and therefore we assent to such Testimonies with the same firmness, that we would to the clearest Demonstrations in the World.

The second sence of Certainty is that, which I call'd *Certainty Infallible*; when we are assured that 'tis impossible things should be otherwise, than we conceive and affirm of

them: This is a ſort of Certainty, that humanely we cannot attain unto, for it may not be abſolutely impoſſible, but that our Faculties may be ſo contrived, as always to deceive us in the things which we judg moſt certain and aſſured: This indeed we do not ſuſpect, and we have no reaſon to do it; which ſhews that we are certain in the former Senſe: But we may not ſay 'tis utterly impoſſible; and conſequently we cannot have the certainty of this latter ſort: which perhaps is proper only to Him, who made all things what they are; and diſcerns their true natures by an infallible and moſt perfect knowledg.

The ſum of which is, that though we are certain of many things, yet that Certainty is no abſolute Infallibility; there ſtill remains the poſſibility of our being miſtaken in all matters of humane Belief and Inquiry. But this bare poſſibility (as I ſaid) moves us not, nor doth it in the leaſt weaken our aſſent to thoſe things, that we clearly and diſtinctly perceive: but we believe with as much firmneſs of aſſurance the Matters that our Faculties do ſo report to us, as if there were no ſuch poſſibility; and of greater Certainty than this there is no need. It is enough for us, that we have ſuch Principles lodged in our minds, that we cannot but aſſent to; and we find nothing to give us occaſion to doubt of the truth of them.

This is Humane Certainty, and let vain and affected Scepticks talk what they will, they cannot in earneſt doubt of thoſe firſt Principles which I have mention'd. They are univerſal, and believ'd by all Mankind; every one knows, every one uſeth them: For though they do not lie in the minds of all Men in the formality of ſuch Propoſitions, yet they are *implicitly* there; and in the force and power of them every Man reaſons, and acts alſo. Theſe are the Seed of Reaſon, and all the Concluſions (at never ſo great a diſtance) that are truly deduc'd from thoſe firſt Certainties, are as true and certain as they are; and both together make up what we call *Reaſon*. So that this is not ſo various and giddy a thing as ſome vain inconſiderate Men talk; but 'tis one ſteady Certainty, and the ſame all the World over. Fancies, Opinions, and Humors, that miſtaken Men call Reaſon, are infinitely divers, and fallacious; But thoſe Principles and Concluſions

clusions that are clearly and distinctly perceiv'd by our minds; those that are immdiately lodg'd in them, and the consequences that truly arise from *those*, and the right informations of Sence, they are one, and certain, without variety or deceit. Now all Men partake of Reason in some degree (of the prime Principles at least, and the Faculty of deducing one thing from another); But the most use that little perversly, and to their own deception, arguing from prejudices of Sense, Imagination, and customary Tenents, and so filling up their minds with false and deceitful Images, instead of Truth and Reason. 'Tis the office and business of *Philosophy*, to teach Men the right use of their Faculties, in order to the extending and inlarging of their Reasons; and one principal Rule it gives is, To be wary and diffident, not to be hasty in our Conclusions, or over-confident of Opinions; but to be sparing of our assent, and not to afford it but to things clearly and distinctly perceiv'd: And this was the aim and design of that Discourse, which this Learned Man accuseth as such a piece of Scepticism, and discouragement of Science.

I have now said what I intended concerning the first thing, on which my Assailant insists, The *charge of Scepticism*, and I suppose I have sufficiently shewn the injustice of it.

I proceed to the **second** main Business of his Book, which is to give an account of those *difficulties* which I have mention'd, as yet *unresolv'd*: Concerning those I affirm not, that they are impossible to be unridled, but that they have not been explain'd by any yet extant *Hypothesis*; a sad Argument of intellectual deficience, that after so much talk of Science and endeavour after Knowledg, we should be yet to seek, and that in those Matters which we have the greatest advantages to understand. But this learned Man thinks he can resolve them; and I have so great a kindness for any ingenious attempts of this sort, and so great a desire to be satisfied about those Theories, that I am ready to entertain any good probability that shall be offer'd, even by a profest Antagonist; for Truth is welcome to me from any hand that brings it. I have therefore candidly, and impartially consider'd this Gentleman's Solutions, but cannot satisfie my self with them. The Reasons of

my Dissatisfactions I shall now give in an examination of his Accounts.

He takes occasion from my waving the difficulties of *Magnetism*, and the *flux* and *reflux* of the Sea, to give his solution of them; But I am not concern'd here, they are none of the things on which I insist, yea I professedly decline them; and intimate that these are better known, than less-acknowledg'd Mysteries; *Des-Cartes* his Hypotheseis are fair and probable, but I think this Philosopher's Accounts very obnoxious, especially there where he makes so constant and regular an effect, as is the flux and reflux of the Sea to be caus'd by so uncertain, and proverbially inconstant a thing as the Winds. But I shall not trouble my self to remarque on Matters, with which my Discourse hath nothing to do. My business is with the pretended Answers to the Difficulties I mention, as not well resolv'd by any yet known Hypothesis: On which the Learned Man enters, *Plea 5th*, and in order begins with those about the SOUL, in these words.

'1. *In the third Chapter therefore of his most eloquent Dis-*
'*course, he objects our Ignorance of that thing we ought to be best*
'*acquainted with*, viz. *our own SOULS*, p. 30.

This I do, and to the Difficulties I propound about the *Origine* of the *Soul*: It's *Union* with the *Body*: It's *moving* of it, and direction of the *Spirits*; The general, short Answer is, That to *suppose the Soul a Substance, that may be made, come, and join'd to another, a Subsistence, Thing, or Substance, is a most important* Error *in Philosophy, of which*, he saith, *none can doubt, that is able to discern the opposition of one, and many*, [*ibid.*] The meaning of which must be, That the *Soul is no distinct Substance from the Body*: And if so, almost all the World hath hitherto been mistaken: For if we inquire into the *Philosophy* of the *Soul*, as high as any accounts are given of it, we shall find its *real substantial distinction* from the *Body* to have been the current belief of all Ages, notwithstanding what this Gentleman saith, That none can doubt that this is *an error in Philosophy, that knows the opposition of one and many*. For,

(1.) The highest times, of whose Doctrines we have any History,

History, believ'd its *Preexistence*; and consequently that it is a *certain Substance, that might be made, come, and be join'd to another.* Of this I'le say a few things.

If credit may be given to the *Chaldean* Oracles, (and perhaps more is due to them than some will allow) *Preexistence* is of highest Antiquity. We have that Doctrine plainly taught in those ancient Verses:

> χρὴ σὲ σπεύδειν πρὸς τὸ φάος, καὶ πατρὸς αὐγάς,
> Ἔνθεν ἐπέμφθη σοὶ ψυχή.——

> *Oportet te festinare ad Lucem, & patris Lumina,*
> *Unde missa tibi est anima.*——

And afterwards more clearly,

> Δίζεο σὺ ψυχῆς ὀχετὸν, ὅθεν ἢ τινὶ τάξει
> Σώματι θητεύσας ἐπὶ τάξιν ἀφ' ἧς ἐῤῥύης
> Αὖθις ἀναστήσεις. ——

> *Quære tu animæ canalem, unde aut quo ordine*
> *Corpori inservieris in ordinem a quo effluxisti*
> *Rursus restituas.* ——

And *Isellus* in his exposition of the *Chaldean Theology* tells us, That according to their Doctrine Souls descended hither, Ἢ διὰ πτεροῤῥύησιν, ἢ διὰ βούλησιν πατρικὴν εἰς τὸ κοσμῆσαι περίγειον λῆξιν, Either through the moultring of its Wings, or the will of the Father of Spirits, that they might adorn this Terrestrial State: And again *Zoroaster*, speaking of Humane Souls, saith they are sent down to Earth from Heaven, Ποτὶ γαῖαν ἀπ' οὐρανόθεν.

2. *Trismegistus* (if those remains that bear his Name may be allow'd) is express in asserting the same Doctrine: In his *Minerva Mundi* he brings in God threatning those he had placed in an happy condition of Life and injoyment, with *Bonds* and *Imprisonment*, in case of Disobedience; Δεσμοὺς, καὶ κολάσεις ὑμῖν τεχνιτεύσω: and they transgressing, he adds, That he commanded the Souls to be put into Bodies; καὶ τὰς

ψυχὰς ἐκέλευσε ἐνσωματισθῆναι: And in another place assigns this for the cause of their Imprisonment in Bodies; Ἐπιγνῶτε δ' οὖν ὡς διὰ τὰ πρόσθεν πραχθέντα ὑμῖν κόλασιν ταύτην ὑπομένετε, καὶ ἐνσωματῶσιν. He would have them acknowledg that they sustain'd that punishment, and imprisonment in Bodies for the things they had done before they came into them.

3. It was also the Opinion of the Ancient Jews; That all Souls were at first created together, and resided in a place they call *Goph*, a Celestial Region. And therefore 'tis said in the *Mishna*, *Non aderit filius* David, *priusquam exhausta fuerint universa Animæ quæ sunt in Goph*. So that they believ'd all Generations onEarth to be supplyed from that Promptuary, and Element of Souls in Heaven; whence they supposed them to descend by the *North Pole*, and to ascend by the *South*; whence the saying of the Cabalists, *Magnus Aquilo Scaturigo Animarum*; From which Tradition 'tis like *Homer* had this Notion,

——— Δύω δέ τε αἱ θύραι εἰσίν,
Αἱ μὲν πρὸς βορέαν καταιβαταὶ ἀνθρώποισιν.
Αἱ δ' αὖ πρὸς νότον εἰσὶ θεώτεραι, οὐδέ τι κείνῃ
Ἄνδρες ἐσέρχονται, ἀλλ' ἀθανάτων ὁδός ἐστι.

——————— *Janua duplex:*
Hæc Boream Spectans homines demittit: at illa
Respiciens Austrum divinior, invia prorsus
Est homini, præbetque viam immortalibus unis.

4. 'Tis notoriously known, that *Pythagoras* and his Sectators held the Doctrine of *Transmigration*, which supposeth *Preexistence*, and both, that the Soul is a Substance, which can *come*, and be *join'd to another thing*. Some Pythagoreans write, that *Pythagoras* himself after 216 years *Transanimation* returned to Life again. Now this Opinion being so universally imputed to this Philosopher, and his School, I shall not need to insist on it as far as it concerns *them:* but I take notice, that both *Jews*, *Persians*, *Indians*, *Arabians*, and divers other Nations, *&c.* did of old, and do still hold the same Doctrine.

Manasseh

Manasseh Ben Israel ascribes the Opinion of *Transmigration* to *Abraham*; and the Cabalists teach, that every Soul is successively join'd to three Bodies: So the same Soul, they say, was in *Adam*, *David*, and the *Messias*; and the same in *Seth*, *Shem*, and *Moses*, according to *R. Simeon*, who (as the Cabalists generally do) stops the course in the third Transmigration: as is noted from him by a Learned Man of our own. There are at this day great Sects among the Indians of the East, that retain this Doctrine of Transanimation, believing that the Souls of some descend again into Humane Bodies; but that others pass into the Bodies of Beasts: So did some of the Ancient Pythagoreans, who taught, that good Men returned to their former blessed and happy Life; but that the wicked in their first Transmigration chang'd their Sex; in the second they descended into Beasts: yea, some supposed them at last to go into Trees, and other Vegetables.

Now all these committed the great Error in Philosophy, of which I am accused, in supposing the Soul to be a *certain Substance*, which may *directly be made*, *come*, *and be join'd to another thing*, and so, according to our Author, They could none of them *discern the opposition of one and many*.

But, (2.) This pretended important Error in Philosophy of the *Soul's* being *a Thing*, and *Substance*; and one *distinct* from the *Body*, must be held by all, that believe its *natural Immortality*: for *Separability* is the greatest Argument of *real distinction*; especially *that* which the Schools call *Mutual*. Now the Soul's Immortality hath had a general Reception from the wiser and better part of Mankind: The *Egyptians*, *Chaldeans*, *Assyrians*, *Indians*, *Jews*, *Greeks*, and universally all that had a name for Wisdom among the Ancients, believ'd it. And the same hath been the apprehension of latter Ages. A Councel of the Church of *Rome* it self hath defin'd it, and recommended the demonstrating of it to all Christian Philosophers. And if the Soul lives after the dissolution of the Body, 'tis certainly a Substance distinct from it; for nothing can subsist without it self: and real separability cannot consist with *Identity* and *Indistinction*.

3. The *Sacred* and *Mosaical* Philosophy supposeth the Soul to be a Substance that *can come*, and *be join'd to another*: For

it tells us, That God *breathed into* Adam's *Nostrils the Breath of Life*; by which generally is understood his infusing a Soul into him: And all the Arguments, that are alledg'd from Scripture to prove its *immediate Creation*, do strongly conclude it to be a distinct Substance from the Body.

And, (4.) The same Doctrine is more than once affirm'd by *Aristotle* himself, for saith he, λείπεται δὲ τὸν νοῦν θύραθεν ἐπεισιέναι, καὶ θεῖον εἶναι μόνον, It remains that the Mind (or Soul) comes from without, and is only a Divine Thing. Again, ὁ δὲ νοῦς χωριστὸς, The Mind is *separate*, &c. a thing apart from the Body. For elsewhere he saith, οὐδὲ γὰρ αὐτοῦ τῇ ἐνεργείᾳ κοινωνεῖ σωματικὴ ἐνέργεια, The Operations of the Body do not communicate with its (the Soul's) Operations. He calls it, οὐσία τις, a *Substance*, or *Subsistence*; for supposing which I am reprehended by our Philosopher: And affirms further, ὁ δὲ νοῦς θειότερόν τι καὶ ἀπαθής ἐστιν; The Mind is a Divine and Impassible Thing. It appears then from the Testimonies (and I could alledg more, if there were occasion) that *Aristotle* taught the real Distinction which I suppose, and so, according to our Author, is one of them that *understands not the opposition of one and many*. Yea,

(5.) Our Philosopher's learned Friend and Admirer Sir *Kenelm Digby* is another, for that ingenious Gentleman affirms in his *Immortality*, That the *Soul is a Substance*, and a *Substance besides the Body*: and almost all that Discourse depends on that supposal.

(6.) This Author himself affirms as much in his *Peripatetical Institutions*, as ever I suppos'd: For he saith, ['Tis most evident, that the Mind is something of another kind from *Quantity* and *Matter*; That 'tis a *substantial Principle* of Man, and *no mode* or *determination* of divisibility, and that there is nothing common to Body and Spirit]. Besides which in the fifth Book of the same Institutions he discourseth of the Soul's *separation* from the Body, and asserts it to be evident, that it perisheth not with it, because it hath Actions that belong not to a Body, but hath of it self the Nature of a Being: and its power of Existence is not taken away, when the Body fails, the Soul being apart from, and besides it; and that matter is not necessary to the Soul's Existence: Many other

other Expressions there are in that Discourse to like purpose, which speak the Soul's *Real Distinction* from the Body, in as *great variety* of Phrase, as Diversity and Distinction can be spoken. But all this is forgotten, and now 'tis a *most important Error in Philosophy* to suppose the Soul to be a *certain Substance, which may directly be made, come, and be join'd to another*, and of this *none can doubt that understand the Opposition of one and many.*

I think now by all this 'tis pretty clear, that my supposition of the *Soul's* being *a distinct Substance* from the *Body*, is not peccant, except all the wiser World, both Ancient and Modern, have been mistaken, and our Author himself.

But besides all, (2.) It seems to me evident even from the nature of the things, abstracting from Authority. And I think it appears,

(1.) From all the common Arguments that prove the *Soul Immaterial*; For *Perception*, Perception of *Spirituals*, *Universals*, *Mathematical* Lines, *Points*, *Superficies*, Congenit *Notions*, *Logical*, *Metaphysical*, and Moral; *Self-reflection*, *Freedom*, *Indifferency*, and *Universality* of Action: These are all Properties not at all agreeing with Body or Matter, though of never so pure and simple a Nature: Nor is it conceivable how any of these should arise from *Modifications* of *Quantity*, being of a divers kind from all the Effects and Phænomena of *Motion*.

2. If the Soul be not a distinct Substance from the Body, 'tis then a certain *Disposition* and *Modification* of it; which this Author in the tenth Lesson of his *Institutions*, seems to intimate, saying, *That since the Soul is a certain Affection* —— *which is introduced, and expell'd by corporeal Action* —— Hence he inferrs something that is not for our purpose to relate: And if so, since all diversities in Matter arise from Motion and Position of Parts, every different Perception will require a distinct order and position of the Parts of the Matter perceiving, which must be obtain'd by Motion: I demand then, when we pass from one Conception to another, is the Motion (the cause of this Diversity) merely casual; or directed by some Act of Knowledg? The former I suppose no Man in his wits will affirm, since then all our Conceptions will be

I nonsense

non-ſenſe and confuſion; Chance being the Cauſe of nothing that is orderly and regular: But if there be a knowledg in us of that directs the Motions that make every diſtinct Conception; I demand, concerning that Knowledg, whether it be in like manner directed by ſome other; or is it the Effect of mere Caſual Motion? If the former, we muſt run up in *infinitum* in our inquiry; and the latter admits the alledg'd Abſurdities. There is no way then of defending the Aſſertion of the Souls being Matter, or any modification of it, but by affirming with Mr. *Hobbs*, a certain connection between all our Thoughts, and a neceſſary fate in all things, which whoever affirms, will find Difficulties enough in his Aſſertion to bring him to mine, that there is a *Vanity* in *Dogmatizing*, and Confidence is unreaſonable.

I have inſiſted the longer on this, becauſe the *diſtinction* of the *Soul* from the *Body* is a very material Subject, the proof of which is very ſeaſonable for the preſent Age; and by it I have diſabled our Author's pretended Solution of the three Difficulties I mention, *viz.* of the *Origine* of the *Soul*; its *Union* with the *Body*, and its *moving* of it. Concerning which laſt he adds,

P. 33. *That true it is, one animated Member moves another, but not that any Subſtance, that is a pure Soul, moves immediately any Member in which the Soul is not.* Which laſt I know no Body that ſaith; I cannot affirm the Soul moves any Member immediately, but 'tis like it doth it by the *Spirits* its *Inſtruments.* Much leſs did I ever ſay, That the Soul moves any Member *in which it is not*: But the Seat of Senſe, and Original of Animal Motion is in the Brain or Heart, or ſome other main part (of which in particular I determine nothing). Thence the Soul ſends its Influences to govern the Motions of the Body, through all which it is diffuſed. 'Tis true, one animate Member moves another, but the Motion muſt ſomewhere begin: In Actions purely *Mechanical*, it begins in material Agents that work upon the Body, and its Parts: but in thoſe that are immediately under our *Wills*, the Motion hath its beginning from the Soul moving firſt ſomething *corporeal* in us, by which other parts are mov'd. But our Author appeals to *other Animals*, in which, he ſaith, There's frankly denyed *a Soul independent on the Body*: But this Learned Man knows,

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The *Platonists* assign them *Souls immaterial* Beings *divers* from the Body; and the *Peripateticks*, *substantial Forms* distinct from *Matter*. *Des Cartes* indeed thinks them to be *pure Machines* mov'd altogether after the manner of a Clock or Engine; which if it should prove to be truly their case, yet have we no reason to believe it so in our selves, since we feel it otherwise, *viz.* That we can *move* and *stop* many of our Motions upon the command and direction of the Will; which Faculty belongs to some Principle *Immaterial*: And if this be always determin'd by something Corporeal, and not in our own power, as he seems to intimate; Farewel *Liberty*, and welcome *Stoical* Necessity, and *irresistible Fate* in all things.

For the other things that follow *pag.* 35. in answer to the Doubts about *Sensation*, particularly our decerning *Quantities*, *Distances*, &c. 'Tis evident by what he speaks of demonstrating those things by the *Opticks*, that he understands not the force of the Objection, and hath said nothing that comes near it; as will appear plainly to any capable Person, that will take the pains to compare what we both write.

He comes next, *p.* 36. to my Difficulties about the *Memory*; concerning which I say not, (as he suggests) That 'tis *impossible to be explicated*; but that *none of the known Hypotheseis* have yet explain'd it; which is sufficient for my general conclusion of the present *Imperfection*, and the *Narrowness* of our Knowledg. But our Author thinks Sir *K. Digby*'s account to be the true Solution; and answers to my Objection, that 'tis as conceivable how the *Images*, and representations of Objects in the Brain should keep their distinct and orderly situations, without confusion or dissipation; as how the *Rays* of Light should come in a direct Line to the Eye; or how the *Atomical Effluvia*, that continually flow from all Bodies, should find their way. To which I reply.

(1.) The multiplying Difficulties doth not solve any: for supposing these to be unaccountable, or very hard to be explain'd; yet this would only argue another defect in our Knowledg, and so be a new evidence of the truth of my general Conclusion. But, (2.) The propos'd Instances are not so desperate: For 1. supposing Light, with *Des-Cartes* (which is most probable) to consist in the

conamen of the *æthereal Matter*, receding from the Centre of its Motion; the direct tendency of it to the Eye is no difficulty worth considering; or if the Rays be *Atomical* Streams, and Effluxes from the Sun, there is *then* nothing harder to be conceiv'd in this Hypothesis, than in the direct spouting of Water out of a Pipe; nor any more, than in the beating of the Waves against the side of a Ship, when it swims in the Sea. And 2. for the other Instance of *corporeal emissions* that find their way to the Bodies, with which they have intercourse; it would require to be prov'd, that the secret Operations of Nature are performed by such *material effluvia*: Perhaps 'tis more likely that those strange Effects are not *Mechanical*, but *Vital*, effected by the continuity of the great Spirit of Nature, which is diffus'd through all things: or however, to suppose the *Memory* to be as clear and plain as *Magnetism*, and *Sympathies*, will be no great Advantage to the belief of the intelligibleness of it.

There needs no more here; only I take notice of the Charge, *p.* 41. in these words, —— *I'd remember the ingenious Author, that he mis-imposeth the third Opinion (which relisheth nothing of Philosophy) upon* Aristotle, *who taught the Digbæan way.* To which, I say, if the Doctrine of *Intentional Species* be not *Aristotle*'s, than the Universities of *Europe* (who have taught this Opinion to be his) have hitherto been mistaken; and this Assertion, that *Aristotle* deliver'd the *Digbæan* Doctrine of *Atomical Effluvia*, will alter the whole Hypothesis; and then there will be little or nothing of *Aristotle* in his Schools. (2.) The *Digbæan*, *Atomical* Opinion is notoriously known to have been the way of *Democritus*, and *Epicurus*, which *Aristotle* frequently and professedly opposeth; That *Democritus* taught the *Atomical* Hypothesis we have *Aristotle*'s affirmation to justifie: φασὶ γὰρ (speaking of *Leucippus* and *Democritus*) εἶναι τὰ πρῶτα μεγέθη, πλήθει μὲν ἄπειρα, μεγέθει δ' ἀδιαίρετα. —— *Dicunt enim esse primas magnitudines, multitudine quidem infinitas, magnitudine vero indivisibiles* —— and as he goes on, τούτων συμπλοκῇ, καὶ περιπλέξει πάντα γεννᾶσθαι: *Horum complexione, & circumplexu omnia gigni.* And that *these* solv'd the way of Sensation by *material Images* we have from *Plutarch*: Δημόκριτος,

Ἐπίκουρος

Ἐπίκουρος κατὰ εἰδώλων εἰσκρίσεις ᾤοντο τὸ ὁρατικὸν συμβαίνειν: *Democritus, Epicurus per Idolorum ingressus putarunt visivum evenire.* This Hypothesis *Aristotle* endeavours to confute, ἄτοπον δὲ καὶ τὸ μὴ ἐπελθεῖν αὐτῷ ἀπορῆσαι διὰ τί ὀφθαλμὸς ὁρᾷ——*Absurdum etiam quod illi non venerit in mentem dubitare, cur oculus vidit solus, aliorum vero nullum quibus apparent idola.* And again, Δημόκριτος δὲ καὶ οἱ πλεῖστοι——*Democritus & plurimi Physiologorum, quicunque loquuntur de sensu, absurdissimum quiddam faciunt; omnia enim sensibilia tactilia faciunt.* We see then *Aristotle* thought the Doctrine of Sensation by *Corporeal Images* absurd in *Democritus* and *Epicurus*, and therefore he must have much contradicted himself, if he taught the same Doctrine with Sir *K. Digby* about the *Memory*, which was one with that of those Ancients. And there is little doubt but that the *Memory* is excited to Action by the like Instruments that the external Senses are, consonantly to that of *Plato* in his *Phædo*, (speaking of the *Senses*) Ἐκ τούτων δὲ γίγνοιτο μνήμη, *viz.* That the Memory is begot of them: And the same *Aristotle* affirms almost in the same words, Ἐκ μὲν οὖν αἰσθήσεως γίνεται μνήμη, The Memory is begot out of the Sense. So that I think I am not mistaken in this matter; or if I am, I err with the great Body of his Sectators.

But whether the Doctrine of *Intentional Species* be *Aristotle*'s, or not, 'tis no great matter, I make this no charge against him; And if it be not *his*, 'tis however the common Tenent of his Schools, and so fit to be consider'd as an *Hypothesis*, which I have done, and shewn it to be an insufficient account of the *Memory*.

To the Difficulty I propose about the *Formation* of *Animals*, our Author offers two Things; The *first* of them may deserve a word or two about it; In his own words 'tis thus exprest.

'Conceive the *first* thus; Let's say the Seed of a Plant, or 'Animal, contains invisible parts of all the Animal's Members: 'These let's say supplyed with moisture increase, with some 'slight mutation whereof the reason may be easily rendred '(for example that some parts dryer and harder, others are 'more throughly water'd, and grow soft) and what great

'matter

'matter will be apprehended in the formation of living
' things?

You may remember Sir, that once, when you and I were talking of the wonderful diſcoveries of the *Microſcope*, and the many compleat Animals it diſcloſeth, which lay hid from our unaided ſight, we fell thence into a diſcourſe of the ſtrange and incredible ſubtilty of Nature in forming ſo many diſtinct Parts, and Members, and Paſſages in thoſe inviſible Creatures; and of the groſneſs of our Senſes in compariſon of the fineneſs and tenuity of thoſe works: I then made an offer to you of this *Hypotheſis* of the *Formation* of *Organical* Bodies, which I expreſt to this effect: That *the Seeds of things are certain, and are the things themſelves in little: having all that is in the compleated Body in ſmalleſt and inviſible parts; and ſo generation is but accretion, and growth to greater bulk and conſiſtence.* To this purpoſe our Author here ſpeaks; and the Hypotheſis receives probability, and advantage from the late diſcoveries of the ingenious *Malpeghius*, and Dr. *Grew* in his Anatomy of Plants: Nor is it unlikely but that Vegetables are folded up in their Seeds; and that their Vegetation is only the expanding and unfolding of them. But in Animals the thing is of more difficult conception, ſince the immediate matter of many, if not of moſt, Generations is an *homogeneous* fluid. To which I know it will be ſaid, that the *organiz'd* Body is in it, though it be ſo ſmall as to be *inviſible:* But it is not very probable, that an inviſible Atome of a Creature ſhould expand it ſelf into the vaſtneſs of a Whale or Elephant; or that the Original Bodies of thoſe immenſe Creatures, ſhould be undecernable by the acuteſt ſight, when the *ſeminal* Body (if I may ſo call it) of very ſmall Plants are plainly viſible. And if this be ſo, that the Seed of Animals actually contains the formed Bodies of the Animals themſelves, thoſe little Bodies muſt either be ſuppoſed created by God, in the form and conſiſtence in which they are, from the foundation of the World; or they are produc'd after, in an orderly courſe of Nature: If the former be ſaid, ſome will be apt to ask, Whether this will not deſtroy all *Philoſophy*, being ſo immediate a recourſe to Creation, and the infinite Power of God? And the *manner* of thoſe Formations is never the more intelligible

for

for being resolv'd into the immediate efficiency of incomprehensible Power and Wisdom. But if they are produc'd in a *natural* way, we are then as much at a loss to find by what Agent, and what direction those Corpuscles are form'd, as we are to understand the way and manner of it in greater Bodies. Or, be they produc'd how they will, by *Creation*, or *Nature*, yet still the Trouble and Doubts will be as many and great in the conception of their growth to their visible Bulk, which we call their Generation: For still must be a Director of the Matter by which each part is increast, that must separate, dispose, guide, and proportion it *so*, as that no part may exceed, none may want: and so the Queries, and Difficulties, that concern the Generation of Organical Bodies, are unanswered notwithstanding this Hypothesis.

Our Author's *second* Solution concerns only the *gross* and *material* Ingredients in the formation of Bodies, of which he pretends some account. But this is nothing at all to our business, which was to enquire after the *Principle* of *Direction* of those various and methodical Motions that are requisite to the formation of an Animal, or other Organical Body. And the Chymical Processes, and Elementary Solutions of which he speaks *p.* 43. signifie no more to the Matter, than if a Man should answer an enquiry about the Art and Method of the Motions of a Watch, by saying, They are perform'd by Steel, Iron, Brass, or Silver, wherein the *Matter* of the Work indeed is declar'd, but not the *Artifice*.

The Learned Man comes next to the Solution of two difficulties I propose about Matter, the *Union* of its *Parts*, and the *composition* of *Quantity*, *p.* 45. His answer in short is, That *there are no actual parts in quantity before division*: Which if it be so indeed, there is then no ground for the Questions *how they are united*; or of *what compounded*. But I shall shew; 1. That there are *actual Parts*; and, 2. That the Grounds of the contrary Assertion are weak and insufficient.

1. The formal nature of *Quantity* is *Extention*, in the Notion of *Aristotle*'s Schools; and *divisibility* in the Philosophy of Sir *K. Digby*, and our Author; both which *suppose parts*, and parts *actual*: for to be *extended*, is to have *partes extra partes* (as the School Phrase is); and if the Extension be actu-

al;

al, the Parts must be so: for it is not conceivable how a thing can be extended but by parts, which are really *distinct* from one another, though not *separate:* Nor can a thing be divided, except we suppose the Parts preexistent in the divisible; for *Divisibility* is founded upon *real distinction*, and 'tis impossible to divide that which is one without any diversity. (2.) Except there are parts in Matter *before Division*, there are *none* at all: For *after* they are divided they are *no parts*, but have a *compleatness* and integrality of their own, especially if their Subject were an *Homogeneous* Body. (3.) If there are not *actual* Parts in Quantity, *Contradictions* may be verified *de eodem* in all the Circumstances, which the *Metaphysicks* teach to be impossible: For the same Body may be seen, and not seen, black and white, hot and cold, moist and dry, and have all other the most contrary Qualities. To this Sir *K. Digby* answers, ['That it is not one part of the thing that 'shews it self, and another that doth not, one that is hot, and 'another cold, *&c.* But it is the same thing, shewing it self 'according to one possibility of Division, and not another.] To this I say first, These distinct Possibilities are founded upon distinct Actualities, which are the parts I would have acknowledg'd: and such a capacity of receiving things so different cannot be in the same Subject without the supposal of parts actually distinct and divers. 2. The Subjects of these contrary Qualities are things *actual*, whereas *Possibilities* are but *Metaphysical* Notions; and these Subjects are distinct, or Contradictions will be reconcil'd: from which the Inference seems necessary, that Quantity hath Parts, and Parts Actual; and distinct Possibilities will not salve the Business. And, 3. why must the common Speech of all Mankind be altered? and what all the World calls *Parts* be call'd *Possibilities* of *Division?* Which yet, if our Philosopher will needs name so, they be acknowledg'd *distinct*, and prov'd *actual*, or at least founded immediately upon things that are so; my Questions will as well proceed this way as in the common one, *viz.* How the things that answer to these distinct Possibilities are united, and of what compounded?

There is another Answer which I find in our Author's *Peripatetical Institutions*; the sum of which is, ['That the 'Con-

'Contradictions have only a notional repugnance in the Sub-'ject as 'tis in our Understandings; and since the parts have a 'distinct Being in our understanding, from thence 'tis that 'they are capable to sustain Contradictions]. Which answer, if I understand, I have reason to wonder at, for certainly the Subject sustains the Contradictories as it is *in re*; and I never heard of a *Notion*, *black* or *white*, *hot* or *cold*, but in a *Metaphor*: 'Tis the real Substance is the Subject of these Contrarieties, which were impossible, if it had not divers Realities answering to the Qualities that so denominate: and therefore 'tis not the Understanding that makes the divers Subjects of these Accidents, as our Author suggests: but their being such is the ground that we so apprehend them. This I think is enough to shew that there are *actual Parts* in *Quantity*. To which I must add,

(2.) That the Grounds of Sir *K. Digby*, and our Author, on which they build their Paradox, are insufficient. The Reasons are; [1]. *Quantity* is *Divisibility*; [2]. *Divisibility* is *Capacity* of *Division*; [3]. What is only *capable* of division, is not *actually* divided; [4]. Quantity is not *actually* divided, and therefore hath no *parts actual*. To which I say,

(1.) That Quantity is *divisibility*, is presumed; but *extension* is before it, in Nature, and our Conception; and it is the receiv'd Notion, though I think *Impenitrability* is the truest. (2.) *Division* supposeth *Union*, and Union *parts united*. (3.) What is only *capable* of Division in a *mechanical* Sense, may, and ought to be divided in a *Metaphysical*: That is, they ought to be divers in their Being, before they can be separated, and distinct in their Quantity; for *Separability* must suppose *Diversity*.

But, (2.) It is pleaded against *Actual Parts* in Quantity; that if we admit them, we cannot stop till we come down to *Indivisibles*; of which to suppose Quantity compounded, is said to be absurd and impossible. In answer to which, I grant the Inference, and have acknowledg'd the Hypothesis of Indivisibles to be full of seeming Inconsistencies, as is the other also: and therefore I reckon both among the things that are *unconceivable*: of which there can be no greater Argument, than their having driven such great and sagacious wits upon

an Assertion, that is contrary to our Senses, and the apprehension of all the World: *That there are no parts in Quantity.* And, (2.) 'Tis no good method of reasoning to deny what is plain and obvious, because we cannot conceive what is abstruse and difficult: To say that Quantity hath no actual Parts, contrary to the suffrage and senses of Mankind, because we cannot untie the Difficulties that arise from its being compounded of *Indivisibles*, a nice and intricate Theory.

Sir, I crave your pardon for this *Spinose* and *dry* Discourse, which I could not well avoid, it being one of the main things of Sir *K. Digby*'s and Mr. *White*'s *Philosophy*, and pretended by the latter, as *such* a Solution of the Doubts I propounded, as renders them *scarce any Difficulties at all:* For the other things he objects, they are smaller Matters; and if you have leisure for such Trifles, I refer you to the discussion of them in my larger Answer, annext to my *Scepsis Scientifica:* in which also you will find what concerns his justification of *Aristotle* and his *Philosophy*.

I am, Sir,

Your affectionate Friend

and Servant,

J. G.

O F

MODERN IMPROVEMENTS OF *Useful Knowledge*.

Essay III.

Essay III.

Modern Improvements OF Useful Knowledge.

NOtwithstanding the shew of Science that the World of Books makes, it must be confest by considerate Men, that Knowledge is capable of far greater Heights and Improvements, than it hath yet attain'd; and there is nothing hath stinted its Growth, and hindred its Improvements more, than an over-fond, superstitious Opinion of *Aristotle*, and the *Ancients*, by which it is presumed that their Books are the *Ne Vltra's* of Learning, and that little or nothing can be added to their discoveries: So that hereby a stop hath been put upon Inquiry, and Men have contented themselves with studying their Writings, and disputing about their Opinions, while they have not taken much notice of the great Book of Nature, or used any likely Endeavours for further acquaintance with it. *This*, whoever will consider, and speak impartially, must confess: and yet in spight of the evil Influence of this Humour, there have been some in all Ages, who have freely search'd into the Creatures of God as they are in *his* World, without vainly spending of their time in playing with those Images of them that the phansies of Men have fram'd in *theirs*. And perhaps no Age hath been more happy in liberty of Enquiry, than this, in which

which it hath pleaſed God to excite a very vigorous and active Spirit for the advancement of real and uſeful Learning. This every ſenſible Man ſhould ſtrive, as he is able, to promote: and I ſhall now endeavour, as far as my weakneſs will permit, to raiſe the capable and ingenious, from a dull and drouſie acquieſcence in the diſcoveries of former times, to a noble vigour in the purſuits of Knowleg: And this I ſhall do, by repreſenting the *Incouragements* we have to proceed, from the *Helps* and *Advantages* we enjoy, beyond thoſe of *remote Antiquity*. In order to this I conſider,

THat there are *Two* chief ways whereby *Knowledg* may be *advanced*, viz. (1.) By inlarging the *HISTORY* of *Things*: And (2.) By *improving INTERCOURSE* and *COMMUNICATIONS*.

The *Hiſtory* of Nature is to be *augmented*, either by an *inveſtigation* of the *Springs* of *Natural Motions*, or *fuller Accounts* of the *groſſer* and more *palpable Phænomena*. For the ſearching out the *beginnings* and *depths* of *Things*, and diſcovering the *Intrigues* of *remoter* Nature, there are *THREE* remarkable *ARTS*, and multitudes of excellent *INSTRUMENTS*, which are great Advantages to theſe *later Ages*; but were either not at at all *known*, or but *imperfectly*, by *Ariſtotle* and the *Ancients*.

The *ARTS* in which I inſtance, are **Chymiſtry, Anatomy**, and the **Mathematicks**: The *INSTRUMENTS*, ſuch as the **Microſcope, Teleſcope, Thermometer, Barometer**, and the **Air-Pump**: *Some* of which were *firſt Invented*, *all* of them exceedingly *Improved* by the *ROYAL SOCIETY*.

To begin with the Conſideration of the *ARTS* mentioned, I obſerve, That *theſe* were very little cultivated or uſed in *Ariſtotle*'s Times, or in *thoſe* following ones in which his *Philoſophy* did moſt obtain.

For

FOr the FIRST, *CHYMISTRY*, it hath indeed a pretence to the great *Hermes* for its *Author* (how *truly*, I will not dispute) : From *him* 'tis said to have come to the *Ægyptians*, and from *them* to the *Arabians :* Among *these* it was infinitely mingled with *vanity* and *superstitious Devices :* But not at all in *use* with *Aristotle* and his *Sectators.* Nor doth it appear, that the *Grecians*, or the *disputing Ages*, were conversant in these *useful* and *luciferous Processes*, by which *Nature* is *unwound*, and *resolv'd* into the *Rudiments* of its *Composition* ; and by the *violence* of those *Fires* it is made *confess* those *latent* parts, which, upon *less provocation*, it would not *disclose.* Now, as we cannot understand the *frame* of a *Watch*, without taking it into pieces ; so neither can Nature be well *known*, without a *resolution* of it into its *beginnings*, which certainly may be best of all done by *Chymical Methods :* By those Enquiries *wonderful discoveries* are made of their Natures ; and *Experiments* are found out, which are not only full of *pleasant surprise* and *information*, but of *valuable use*, especially in the *Practice* of *Physick* ; For It directs *Medicines* less *loathsome* and far more *vigorous*, and freeth the *Spirits*, and *purer* parts, from the *clogging* and *noxious Appendices* of *grosser* Matter, which not only *hinder* and *disable* the *Operation*, but leave hurtful *Dregs* in the Body behind them. I confess, that among the *Ægyptians* and *Arabians*, the *Paracelsians*, and some other *Moderns*, *Chymistry* was very *phantastick*, *unintelligible*, and *delusive* ; and the *boasts*, *vanity*, and *canting* of those *Spagyrists*, brought a *scandal* upon the *Art*, and exposed it to *suspicion* and *contempt :* but its late *Cultivators*, and particularly the *ROYAL SOCIETY*, have refin'd it from its *dross*, and made it *honest*, *sober*, and *intelligible*, an excellent *Interpreter* to *Philosophy*, and *help* to *common Life.* For *they* have laid aside the *Chrysopoietick*, the *delusory Designs*, and *vain Transmutations*, the *Rosicrucian Vapours*, *Magical Charms*, and *Superstitious Suggestions*, and form'd it into an *Instrument*, to know the *Depths* and *Efficacies* of *Nature.* And this is no small advantage that we have above the *old Philosophers* of the *Notional Way.* And we have another,

II. In

(II.) In the *Study*, *Use*, and *vast Improvements* of *ANATOMY*, which we find as needful to be *known* among *us*, as 'tis wonderful 'twas *known* so little among the *Ancients*, whom a fond *Superstition* deterr'd from *Dissections*. For the *Anatomizing* the *Bodies* of *Men* was counted *barbarous* and *inhumane* in *elder Times*: And I observe from a Learned Man of our own, That the *Romans* held it unlawfal to *look* on the *Entrails*. *Tettullian* severely censures an inquisitive Physician of his time for this *practice*, saying, That *he hated Man, that he might know him*. Yea, one of the *Popes* (I take 'twas *Boniface* 8.) threatens to *Excommunicate* those, that should do any thing of this *(then) abominable* nature. And *Democritus* was fain to excuse his *Dissection* of *Beasts*, even to the great *Hippocrates*. Nor does it appear by any thing extant in the Writings of *Galen*, that *that* other *Father* of *Physicians* ever made any *Anatomy* of *humane* Bodies. Thus *shie* and unacquainted was *Antiquity* with this excellent *Art*, which is one of the most *useful* in humane Life, and tends mightily to the *eviscerating* of Nature, and disclosure of the *Springs* of its *Motion*. But now in these *later* Ages, *Anatomy* hath been a *free* and *general Practice*; and particularly in *this*, It hath received *wonderful Improvements* from the Endeavours of several worthy Inquisitors, some of them Ingenious Members of the *ROYAL SOCIETY*, as Sir *George Ent*, Dr. *Glisson*, and Dr. *Willis*. I instance in the most *remarkable* of their *Discoveries* briefly; And those I take notice of are, The *Valves* of the *Veins*, discover'd by *Fabricius ab Aquapendente*; The *Valve* at the entrance of the *gut Colon*, found, as is generally thought, by *Bauhinus*; The *Milkie Veins* of the *Mesentery*, by *Asellius*; The *Receptacle* of the *Chyle*, by *Pecquet*; The *Ductus Virsungianus*, by *Jo. George Wirsung* of *Padua*; The *Lymphatick Vessels*, by Dr. *Joliffe*, *Bartholin*, and *Olaus Rudbeck*; The *internal Ductus Salivaris* in the *Maxillary Glandule*, by Dr. *Wharton*, and Dr. *Glisson*; The *external Ductus Salivaris* in the *conglomerated Parotis*, The *Ductus* of the *Cheek*, The *Glandules* under the *Tongue*, *Nose*, and *Palate*, The *Vessels* in the nameless *Glandule* of the *Eye*, and the *Tear-Glandule*, by *Nich. Steno*; A new *Artery*, called *Arterea Bronchialis*, by *Fred. Ruysch*. I add, the *Origination* of those *Nerves*, which were

were of old supposed to arise out of the substance of the *Brain*, but are found by late *Anatomists* to proceed from the *Medulla Oblongata*. And though the *Succus Nutritius* be not yet fully agreed upon by *Physicians*, yet it hath so much to say for it self, that it may not unreasonably be mentioned among the *New Inventions*.

But of all the *Modern Discoveries*, *Wit* and *Industry* have made in the *Oeconomy* of *Humane Nature*, the noblest is that of the *Circulation* of the *Blood*, which was the Invention of our deservedly-famous *Harvey*. 'Tis true, the *envy* of *malicious* Contemporaries, would have robb'd him of the glory of *this Discovery*, and pretend it was known to *Hippocrates*, *Plato*, *Aristotle*, and others among the Ancients: But whoever considers the Expressions of those Authors, which are *said* to respect the *Circulation*, will find, that those who form the *Inference*, do it by a *faculty* that makes all *kind* of *Compositions* and *Deductions*, and the *same* that assists the *Enthusiasts* of our days, to see so clearly all our Alterations of *State* and *Religion*, to the *minutest Particulars*, in the *Revelation* of St. *John*. And perhaps it may be as well concluded from the *first Chapter of Genesis*, as from the *Remains* of those *Ancients*; *who*, if they had known this *great* and *general Theory*, how chance they spake no more of a thing, which no doubt they had frequent occasions to mention? How came it to be *lost* without memory among their Followers, who were such *superstitious porers* upon their Writings? How chance it was not shewn to be lodg'd in those Authors, before the days of Dr. *Harvy*, when *Envy* had *impregnated* and determined the *Imaginations* of those, who were not willing any thing should be found anew, of which themselves were not the *Inventors?* But 'tis not only the *remotest* Ancients, whom time hath *consecrated*, and *distance* made *venerable*, whose *Ashes* those fond Men would honour with *this Discovery:* But even much *later* Authors have had the Glory fastned upon them. For the *Invention* is by some ascribed to *Paulus Venetus*; by others, to *Prosper Alpinus*; and a third sort give it to *Andreas Cæsalpinus*. For *these*, though either of them should be acknowledged to be the Author, it will make as much for the design of my Discourse, as if *Harvy* had the credit; and there-

therefore here I am no otherwise concerned, but to have *Justice* for that Excellent Man: And the World hath now done *right* to his *Memory*, *Death* having overcome that *Envy* which *dog's living Virtue* to the *Grave*; and his *Name* rests quietly in the Arms of *Glory*, while the *Pretensions* of his *Rivals* are *creeping* into *darkness* and *oblivion*.

Thus, I have done with the *Instances* of *Anatomical Advancements*, unless I should hitherto refer the late Noble *Experiment* of *Transfusion of the Blood* from one *living Animal* into *another*, which I think very fit to be mention'd; and I suppose 'tis not improper for this place: Or however, I shall rather venture the danger of *impropriety* and *misplacing*, than omit the taking notice of so excellent a Discovery, which no doubt future *Ingenuity* and *Practice*, will improve to purposes not yet thought of; and we have very great likelyhood of Advantages from it in *present prospect*.

For it is concluded, That the greatest part of our Diseases arise either from the *scarcity*, or *malignant temper* and *corruption* of our *Blood*; in which cases *Transfusion* is an *obvious Remedy*; and in the way of this Operation, the *peccant Blood* may be drawn out, without the danger of too much *enfeebling* Nature, which is the grand inconvenience of *meer Phlebotomies*. So that *this Experiment* may be of excellent use, when *Custom* and *Acquaintance* have hardned Men to permit the Practice, in *Pleurisies*, *Cancers*, *Leprosies*, *Madness*, *Ulcers*, *Small-Pox*, *Dotage*, and all such-like Distempers. And I know not why *that* of *injecting prepared Medicines* immediately into the Blood, may not be better and more efficacious, than the ordinary course of Practice: Since this will prevent all the danger of frustration from the *loathings* of the *Stomach*, and the disabling, clogging mixtures and alterations they meet with *there*, and in the *Intestines*, in which no doubt much of the *Spirit* and *Virtue* is *lost*. But in the way of *immediate injection*, they are kept *intire*, all those inconveniences are avoided, and the *Operation* is like to be more *speedy* and *succesful*. Both these *noble Experiments* are the late *Inventions* of the *ROYAL SOCIETY*, who have attested the *reality* of the former, *that* of *Transfusion* of *Blood*, by numerous Tryals

on

on ſeveral ſorts of *brute Animals.* Indeed the *French* made the *Experiment firſt* upon *humane Bodies*, of which we have a good account from *Monſieur Deunis:* But it hath alſo ſince been practiced with fair and encouraging ſucceſs, by our *Philoſophical Society.* The *other* of *Injection*, if it may be mentioned as a different Invention, was alſo the product of the ſame *Generous Inventors*; though indeed more *forward Foreigners* have endeavoured to *uſurp* the *credit* of *both.* *This latter* likewiſe hath ſucceeded to conſiderable good effects, in ſome *new* Tryals that have been made of it in *Dantzick*, as appears in a Letter written from Dr. *Fabritius* of that City, and printed in the *Philoſophical Tranſactions.*

I proceed now to my *THIRD Inſtance* of *ARTS*, (if I may take leave to uſe the word in this large ſenſe) which are *Advantages* for *deep* ſearch into Nature, and have been conſiderably advanc'd by the *Induſtry* and culture of *late* Times, above their *ancient Stature.* And the Inſtance was,

(III.) The *MATHEMATICKS.* That theſe are mighty helps to *Practical* and *Uſeful Knowledge*, will be *eaſily* confeſt by all, that have not ſo much *ignorance* as to render them *incapable* of information in theſe Matters: The Learned *Gerard Voſſius* hath proved it by *induction* in Particulars: And yet it muſt be acknowledged, that *Ariſtotle*, and the *diſputing Philoſophers* of his School, were not much addicted to thoſe *noble Inquiſitions:* For *Proclus* the *Commentator* upon *Euclide*, though he gives a very particular Catalogue of the *Elder Mathematicians*, yet hath not mentioned *Ariſtotle* in that number: And though *Diogenes Laertius* takes notice of a Book he inſcribed μαθηματικὸν, another, περὶ μονάδος, and a Third, yet extant, περὶ ἀτόπων γραμμῶν: Yet it appears not that theſe were things of very great value; and *Ariſtotle's Metaphyſical procedure*, even in *Phyſical Theories*, the *genius* and *humour* of his *Principles*, and the *airy contentions* of his *Sect*, are great preſumptions that *this Philoſopher* was not very *Mathematical:* And his numerous ſucceeding Followers, were certainly very little converſant in thoſe Studies. I have elſewhere taken notice, that there is more publiſh'd by thoſe

Disputing Men on ſome trifling Queſtion about *ens Rationis*, and their *Materia prima*, than hath been written by their whole number upon all the uſeful parts of *Mathematicks* and *Mechanicks*. It would require much skill in thoſe *Sciences*, to draw up the full *Hiſtory* of their *Advancements*; I hear a very accurate *Mathematician* is upon it: And yet to fill up my Method, I'l adventure at ſome imperfect Suggeſtions about the *Inventions* and *Improvements* of this kind: And I begin,

(I.) With **Arithmetick**, which is the Handmaid to all the other parts of Mathematicks. *This* indeed *Pythagoras* is ſaid to have brought from the *Phœnicians* to the *Græcians*: but we hear no great matter of it till the days of *Euclide*; not the *Euclide* that was the *Contemporary* of *Plato*, and Hearer of *Socrates*; but the famed *Mathematician* of that Name, who was after *Ariſtotle*, and at 90 years diſtance from the *former*. *This* is the *firſt* Perſon among the Ancients, that is recorded by the exact *Voſſius* to have done any thing accurately in that *Science*. After *him* it was *advanced* by *Diophantus*, *methodized* by *Pſellus*, *illuſtrated* among the *Latins* by *L. Apuleius*; and in later times much promoted by *Cardan*, *Gemma Friſius*, *Ramus*, *Clavius*, and divers more *modern* Artiſts; among whom I more eſpecially take notice of that Ingenious *Scotchman* the Lord *Napier*,

Who invented the **Logarithms**, which is a way of computing by *Artificial* Numbers, and avoiding the *tædium* of *Multiplication* and *Diviſion*. For by this *Method* all thoſe *Operations* are performed by *Addition* and *Subſtraction*, which in *Natural Numbers* were to be done thoſe *longer* ways. This *Invention* is of great uſe in *Aſtronomical Calculations*, and it may be applied alſo to other Accompts. Beſides *this*, the ſame Learned Lord found an eaſie, certain, and compendious way of Accounting by *Sticks*, called *Rabdology*; as alſo *Computation* by *Napier's Bones*: Both theſe have been brought to greater perfection by others, ſince their *firſt Diſcovery*; particularly by *Urſinus* and *Kepler*.

To them I add the *Decimal Arithmetick*, which avoids the *tedious* way of *computing* by *Vulgar Fractions* in *ordinary* Accompts,

compts, and *Sexagenaries* in *Astronomy*; exceedingly and lately improved hy our famous *Oughtred*, and Dr. *Wallis* a Member of the *ROYAL SOCIETY.* If I should here subjoin the *Helps* this *Art* hath had from the Works and Endeavours of *Anotolius*, *Barlaam*, *Maximus Planudes*, *Nemorarius*, *Florentinus Bredonus*, *Pisanus*, *Orontius*; and in *this Age*, from those of *Adrianus Romanus*, *Henischius*, *Cataldus*, *Malapartius*, *Keplerus*, *Briggius*, *Crugerus*, and a vast number reckon'd up by *Vossius*, I should be tedious on this Head; and therefore I pass lightly over it, and proceed,

(II.) To **Algebra**, of *universal use* in all the *Mathematical Sciences*, in *Common Accompts*, in *Astronomy*, in *taking Distances* and *Altitudes*, in *measuring plain* and *solid* Bodies, and other *useful Operations*. The first noted Author in this Method was *Diophantus*, who lived long since the times of *Aristotle*. He, and those other Ancients that used it, performed their *Algebraical Operations* by *Signs* and *Characters* suted to the several *Numbers*, and *Powers* of *Numbers*, which they had occasion to use in *solving Problems*: But the later *Mathematicians* have found a far more neat and easie way, *viz.* by the *Letters* of the *Alphabet*, by which we can solve divers *Problems* that were too hard for the *Ancients*, as far as can be discovered by any of their remaining Works. For there were many *affected Æquations* (as they call them) that did not *equally ascend* in the *Scale* of *Powers*, that could not be *solv'd* by the *elder Methods*; whereas the acute *Vieta*, a *Mathematician* of this last Age, affirms, he could *resolve* any *Problem* by his *own Improvements*. Besides him, our excellent *Oughtred* another, lately mentioned, did much in this way. But *Des-Cartes* hath out-done both former and later Times, and carried *Algebra* to that height, that some considering Men think Humane Wit cannot advance it further. I will not say so much; but no doubt he hath performed in it things deserving much *acknowledgment*, of which we shall hear more in another place. But I proceed,

(III.) To the Consideration of **Geometry**, which is so *fundamentally useful* a *Science*, that without it we cannot well under-

understand the *Artifice* of the *Omniscient Architect* in the composure of the *great* World, and *our selves*. ΘΕΟΣ ΓΕΩΜΕΤΡΕΙ, was the excellent saying of *Plato*; and the *Universe* must be *known* by the *Art* whereby it was *made*. So that what *Galileo* notes of *Aristotle*, is a great sign of his defects, *viz*. That he reprehended his Venerable Master for his *Geometrical Sublimities*, accusing him that he receded from the *solid Methods* of *Philosophizing*, through his too much indulging that Study; Which is so far from being likely, that *Geometry* is little less than *necessary* to *solid* and *real Philosophy*. And therefore *Plato* admitted none to his School, but those that were acquainted with that Science: Which practice the mentioned excellent *Modern*, notes to be directly opposite to the *Peripatetick* Genius; and some he knew great Men of that way, dehorted their Disciples from *it*; which he introduceth one applauding as a *wise* Counsel, since *Geometry* would detect and shame the *futilities* of that *Notional way*. But not to take too large a compass, this is certain, That *Geometry* is a most *useful* and *proper Help* in the Affairs of *Philosophy* and *Life*. 'Tis almost as clear from those former intimations, that *Aristotle* was not much enclined *that way*; and we know that his *late Sectators*, have very seldome applied themselves to *Geometrical Disquisitions*.

The Result of which is, We must expect the Advantages of this Science, from the declining of *his* and *their Empire*; and I need not say *expect* it, they are both in present view. And if after this any do require accounts of the *Improvements Geometry* hath received, since the foundation of that *Tyranny* by the *Man* of *STAGYRA*, I shall offer the best I have; and though I am conscious that they will be *scant* and *defective*, yet I hope *sufficient* for my present purpose.

I note then from the celebrated *Vossius*, That Euclide was the *first* that brought *Geometry* into a *Method*, and more *accurately demonstrated* those Principles, which before were scattered among the *Greeks* and *Ægyptians*, and not so *cogently* or *carefully* proved. And *Proclus* reckons this *famous Man* as the *Compiler* and *Demonstrator*, not as the *Inventor* of the *Elements*; and two of these Books (*viz*. 14, & 15.) are ascribed to *Apollonius Pergæus*, who was his *nearest Successor* in

Fame

Fame for *Mathematical* Abilities. *This Geometrician* improved the *Science* by four Books of *Conicks*, publish'd of old; and three more have been lately (in the year 1661.) translated out of an *Arabick Manuscript* in the Duke of *Tuscany*'s *Library*, and are now abroad. This *Manuscript Jacob Golius* procured out of the *East*. Besides which, *this Magnus Geometra*, as he was called, *illustrated Euclide* by his Learned *Commentary* upon him. But *Archimedes* of *Syracuse*, was a Person of the greatest renown for *Geometrical* and *Mechanical Performances*; concerning which, *Polybius*, *Valerius*, *Plutarch*, *Livy*, and others, have recorded *prodigious* things: This great *Wit* carried *Geometry* from *general* and *idle Speculation*, to the *use* and *benefit* of Mankind; whereas before him it was an *ancient* and *perverse Opinion*, That *this Knowledge* ought not to be brought down to *vulgar Service*, but kept up in *abstractive Contemplations*: upon which score *Archytas* and *Eudoxus*, those great *Geometricians* before *Euclide*, were scared from the *Mechanical* and *Organical Methods*, to the great hinderance of *beneficial Improvements* in *that way*. But the excellent *Syracusian* understood, that *this Science* is not *debased*, but *promoted* and *advanced* by such *Accommodations*; and evinc'd the *usefulness* and *excellency* of *Geometry*, in his admirable *Paradox* proposed before King *Hieron* (*Datis viribus datum pondus tollere*) [Δὸς μοὶ πȣ̃ ςῶ ϗ κινήσω τὴν γῆν]. *This Mathematician* flourish'd 160 years after the time of *Aristotle*, who hath the name of the most Ancient that writ in *Mechanicks*, though that Book of his be not mentioned, either by *Archimedes*, *Athenæus*, *Hero*, or *Pappus*, *Mechanical* Authors; and *Cardan* and *Patricius* affirm *that Work* to be none of *Aristotl*'s: Whose ever it was, the *Performance* hath praise from the *Learned*, as explaining the *general Causes* of *Mechanical Geometry*. But *Archimedes* was more *practical* and *particular*: And though *Plutarch* in the Life of *Marcellus* affirms he writ nothing; yet the contrary is abundantly proved by *Gerard Vossius*, who hath shewn that the Books extant under his Name, that contain so many great *Maxims* of *Mechanicks*, are *genuine*; and both *Strabo* and *Pappus* mention them as *his*. The Design of *Archimedes*, of combining *Mechanism* and *Geometrick Theory*, was after happily promoted by *Hero* the

Elder

Elder of *Alexandria*, who *invented* those *ingenuous Automata*, that move by *Air* and *Wires*; concerning which he writ a Book that was Translated by *Fredericus Commandinus*, as also he did another *De Machinis Bellicis*, by which he well improved *Geometrick Mechanicks*: And *Pappus* particularly celebrates his exactness in solving the *Deliaick Problem*, *De Cubo duplicando*, acknowledging that he took most of his own Accounts about that Matter, from *that exquisite Man*. Next him, I mention *Theodosius* of *Tripoli*, who very much improved *Geometry* by his three Books *De Figura Sphærica*, which afforded great assistance to *Ptolomy*, *Pappus*, *Proclus*, and *Theon*, in their *Mathematical Endeavours*. *Menelaus* also, who lived in *Trajan*'s time, contributed very much to the *perfecting* the Doctrine of *Sphæricks*, as *Vitellio* well knew, who was famous for those things which he borrowed from that Author. The Performances also of *Ctesibius*, who lived in the time of *Ptolomeus Physcon*, are much celebrated by *Pliny*. He invented many things in *Hydraulicks*, and according to *Atheneus*, he was the first *Contriver* of *Musical Organs*. These were *Mechanical*: but *Geminus Rhodius* the Master of *Proclus Lycius*, applyed *Logick* to *Geometry*, out of *particular Elements* abstracting *Universals*. He demonstrated, That there are only *Three similar Species* of all *Lines*, viz. *Right*, *Circular*, and *Cylindrical*: And *Perseus* following his steps, enrich'd *Geometry* with the Invention of *three kinds* of *Crooked Lines*, the *Parabole*, *Hyperbole*, and *Elipsis*; for which he express'd his extatick joy, as *Thales*, *Pythagoras*, and *Archimedes* did upon like occasions, in a *Sacrifice* to the *Gods*. But to be briefer, *Pappus* improved the *Sphæricks*; *Theon* more *methodically* digested the *Elements* of *Euclide*; *Serenus Antinsensis* discover'd, that the *Section* of a *right Cylindre*, is the same with the *Elipsis* of a *right Cone*; *Copernicus* improved the *Doctrine* of *Triangles*; *Ramus corrected* and *supplied Euclide*, where his *Principles* were *defective*; *Maurolicus* writ *first* of *Secant Lines*; *Clavius* much illustrated and promoted the *Doctrine* of *Tangents*, *Secants*, *Triangles*, *Right Lines*, and *Sphæricks*, besides what he did in his *Comment* upon *Euclide*. I might mention with These, the worthy Performances of *Cusanus*, *Pitiscus*, *Snellius*, *Ambrosius Rhodius*, *Kepler*,

Franciscus à Schoten, and others, who contributed very eminently to the Perfections and Advancements of *Geometry*, and were late Men.

But none have done in it like the Excellent Persons whom I reserve for my last mention; The chief are, *Vieta*, *Des-Cartes*, and Dr. *Wallis*.

To my account of whose Performances, I must premise, That no great things can be done in *Geometry*, without the *Analytical* Method; And though some Learned Men conceive the *Ancients* were acquainted with *this* way of *resolving Problems*, yet their skill in it went no higher than the *Quadratick* Order of *Æquations*, which They *demonstrated* by *Circles* and *Right Lines*, which They call'd *Loca Plana*: but they were able to do nothing in the *Cubical Æquations*, or any of the *Superiour Orders*; though they endeavour'd to cover their *defects* in this *Art*, by recourse *ad Locos Solidos*, (viz. *Conick Sections*) and *Lineares*, as they called them, such as the *Helix*, *Conchoeides*, and those of like nature. But those *tortous* and *curved* Lines being described *Mechanically* by *Compound Motions*, the *Problems resolv'd* by them, are performed *Organically* by the *Hand* and *Eye*, not *Geometrically*.

This was the State of the *Analytick Art*, as long as Learning flourish'd in *Greece*; when *That* was subdued by the *Barbarians*, their Learning with their Country passed to the *Arabians*, and also to the *Persians*, as we have it from *Hottinger* and *Bullialdus*: But these *Successors* of the *Greeks* did not *advance* their Learning beyond the *imperfect Stature* in which it was delivered to them. In that condition it remained till *Cardan* and *Tartaglia*, who made some small addition towards the *perfection* of it; For they gave some Rules for solving *Cubical Æquations*, which were certain in some cases, but not in all. Their *Invention* some other *Mathematical* Men endeavoured to *advance*, laying down *Rules* for solving some *Cubick* and *Biquadratick Æquations*; but could never find an *universal* way, that might reach all such: Yea indeed they *utterly despaired*, and held it *impossible*. At length appears *Vieta*, who by inventing the *Method* of *Extracting Roots* in the most *numerous Æquations*, and by converting the *Signs* used by the *Ancients* into *Letters*, brought *Algebra* to a very great *perfection*,

as I have noted above; and by enriching the *Analytical Art*, by the *Accessions* of his *Exigetice Numerosa*, and *Logistice Speciosa*, he hath contributed infinite helps to *Geometry*. After him, divers other Learned Men polisht and adorned his Discourses; among whom I mention chiefly our Country-men *Harriot* and *Oughtred*, who altred *Vieta*'s *Notes* to advantage, and invented *Canons* to direct our *Operations* in the *Extracting* of *Roots*, both in *pure* and *adsected Æquations*.

But after these had thus improved the *Analytick Art*, and well assisted *Geometry* by it, *Renatus Des-Cartes* appears, who in a *few Pages*, opens a way to *mighty Performances*: He shews us how all the *Problems* of *Geometry* may be brought to such terms, that we shall need nothing to the *Construction* and *Demonstration* of them, but the knowledge of the *length* of certain *right Lines*; and that, as all the Operations of *Arithmetick* are performed by *Addition*, *Subtraction*, *Multiplication*, *Division*, and *Extraction* of *Roots* (which is a *species* of *Division*). So in *Geometry*, for the preparation of *Lines* that they may be *known*, nothing needs more to be done, than that others be *added* to them, or *subtracted* from them; or if the *Line* be *single*, (which that it may be the better referred to Numbers, may be called *Unity*) and beside *that*, two other Lines, that a *Fourth* be found which shall have the same *proportion* to *one* of *these Lines*, that the other hath to *Unity*, which is the same with *Multiplication*; or else, that by them a *Fourth* be found, which may have the same *proportion* to one of them, which *Unity* hath to the other, which is the same with *Division*; or lastly, That there be found between *Unity*, and some other *Right Line*, two or more *mean Proportionals*, which is the same thing with the *Extraction* of *Quadratick* and *Cubick Roots*. And that he may justifie the introducing of *Terms Arithmetical* into *Geometry*, he observes, That the avoiding thereof was an occasion of much *perplexity* and *obscurity* in the *Geometry* of the *Ancients*; of which he could give no other conjecture, but because they did not sufficiently understand the *affinity* and *cognation* of those Sciences. But if I should intend an *exact History* of all his Performances, I must *transcribe Him*; for he hath said so much in little, that 'tis impossible to abridge those his *close Composures*. I shall there-

fore

fore only hint ſome principal things referring to his Writings for the reſt.

And I take notice *firſt*, That he hath propoſed an *Univerſal Method* for the *Solution* of all *Problems*; not only thoſe propounded in *Right Lines*, *Plains*, and *Solids*: but alſo all that are made in *Angles*, a thing of moſt general Service in all parts of *Mathematicks*. By It he reſolves the *famous Propoſition* in *Pappus*, which was too hard for *Euclide*, *Apollonius*, and all the *Ancients*. He diſcourſes the nature of *crooked* Lines, and ſhews which are fit to be uſed in *Geometrical Demonſtrations*; Gives *Rules* for the place where to apply our ſelves in the *Demonſtration* of any *Problem*; and tells us, That a *Problem* after it is brought to an *Æquation*, and reduced to its *leaſt* terms, and the *unknown Quantity* is *Quadratick*, or of two Dimenſiſions, that then it may be demonſtrated by a *Right Line* and *Circles*: but if the *Æquation*, after it is reduced to its *leaſt Terms*, leave the unknown *Quantity*, *Cubick* or *Biquadratick*, it muſt be demonſtrated by ſome one of the *Conick Sections*. Whereas again, if after the *Æquation* reduced, the unknown Quantity remain of five or ſix *Dimenſions*, or more, *in infinitum*, then the Demonſtration muſt be performed by *Lines* more and more *compound*, according to the *degree* of *Compoſition* in the *unknown Quantity* of the *Æquation*. But becauſe the way by *Lines* is *perplext* and *tedious*, he gives *Rules* to reduce *Æquations* of *many Dimenſions*, to *fewer*. He ſhews how to *fill* up *Defects*, when any *Terms* are wanting in the *Æquation*; how to convert the *falſe Roots* into *true*, to avoid *Fractions*, and to *leſſen Æquations*. He hath *demonſtrated*, by a *Circle* and *Parabole*, the famous *Problems* ſo much agitated among the *Ancients*, *viz.* the *Triſection* of an *Angle*, and the *finding two mean Proportionals between two Lines given*, with more brevity and expedition than any that went before him. And this ſhall ſuffice by way of intimation, concerning that Prince of Mathematicians and Philoſophers.

Since *him*, others have improved this *Method*: *Schotenius* hath demonſtrated the *Loca Plana* of *Apollonius*: *Hadderius* hath added Inventions of *uſe* and *pleaſant Speculation* in his *Tract* of *Reduction* of *Æquations*. *Florimundus de Beaune* hath writ ingenious and profitable things, *de Natura & Limitibus*

tibus Æquationum. But 'twould be endless to attempt full Accounts of the Modern Advancements of this Science, or indeed those accessions of growth it hath had since *Vieta.* And whoever should go about it, must reckon to begin anew as soon as he hath finish'd what he intended, since *Geometry* is *improving daily.*

I shall therefore add no more here, but only do right to an excellent Person of our own Nation, Dr. *Wallis*, a Member of the *ROYAL SOCIETY*, to whom *Geometry* is exceedingly indebted for his rare Discoveries in that *Science.* Particularly, he hath propounded a Method for the *measuring* of all kind of *crooked Lines*, which is highly ingenious; and put an end to all future Attempts about *Squaring* the *Circle*, which hath *puzzled* and *befooled* so many *Mathematicians*, that have spent their *thoughts* and *time* about it. This he hath brought to effect as it near as can be done,and shew'd the *exact* performance by *rational Numbers* impossible: He hath proposed excellent ways for the *measuring* all kinds of *Plains*, and all *multangular* and *solid Bodies.* But 'tis time now to proceed to the consideration of the next *Mathematical Science*, Viz.

(4.) **Astronomy**, one of the *grandest* and most *magnifique* of all those that lie within the compass of *Natural Inquiry.* I shall not look back to its beginning among the *Chaldæans*, *Ægyptians*, and *eldest Græcians*; in which Times it was but *rude* and *imperfect*, in comparison to its *modern Advancements.* For the great Men among the *Greeks* are taken much notice of, but for very *ordinary* and *trite* things in this Science: As *Anaximander Milesius*, for teaching, *That the Earth was Globous, and the Centre of the World not bigger than the Sun: Anaximines* for affirming, *That the Moon shone but with a borrowed Light*; *That the Sun and It were Eclips'd by the Earths interposal*; and, *That the Stars move round our Globe.* And *Pythagoras* was the *first* that noted the *obliquity* of the *Eclip-tick.* *This Philosopher* indeed was a Person of a *vast* reach, and said things in *Astronomy* very agreeable to *late Discoveries*: But *Aristotle* made very *odd Schemes*, not at all corresponding with the *Phænomena* of the *Heavens*, as appears from his *Hypotheses*

of

of *Solid Orbs*, *Epicycles*, *Excentricks*, *Intelligences*, and such other ill-contrived Phancies. Besides which, if I should descend to consider his now palpable Mistakes about the nature of *Comets*, the *Galaxy*, the *Sphere of Fire* under the *Moon*, and numerous other such, I should oblige my self to a large ramble. Wherefore to be brief in these Notes, I observe, That after *Aristotle*, *Astronomy* was cultivated and improved by *Theophrastus*, *Aratus*, *Aristarchus Samius*, *Archimedes*, *Geminus*, *Menelaus*, *Theon*, *Hipparchus*, *Claudius Ptolomæus*, and many others among the *Greeks*.

Among *later* Authors, considerable things have been done in this way by both *Latins* and *Arabians*: To omit the *latter*, I shall give you some *particular Instances* of the other.

Johannes de Sacro Bosco, *ingeniously* and *methodically* explained the *Doctrine* of the *Sphere*: *Thebit first* found the *Motion* of *Trepidation*: *Regiomontanus* published the *first Ephemerides*: and did excellent things in his *Theoricks* of the *Planets*. *Wernerus* stated the greatest *Declination* of the *Sun*. *Albertus Pighius* directed the way to find *Æquinoxes* and *Solstices*: *Baersius* fram ed *perpetual Tables* of the *Longitudes* and *Latitudes* of the *Planets*: *Copernicus* restored the *Hypothesis* of *Pythagoras* and *Philolaus*, and gave far more *neat* and *consistent Accounts* of the *Phænomena*: *Joachimus* made *Ephemerides* according to the *Copernican* Doctrine: *Clavius* invented a most useful *demonstrative Astrolabe*, and writ an *exquisite Comment* upon *Sacro Bosco*.

But I conclude the last Century with the Noble *Ticho Brahe*, who performed the great Work of restoring the *Fix'd Stars* to their *true* places, the *assignation* of which before him, was rather by *guess*, than any *competent Rules*, and the *mistakes* here, were the very Root and Foundation of most *Errors* in *Astronomy*. For which reason it was, that *Copernicus* left that *earnest advice* to his Scholar *Joachimus*, that he should apply himself to the *restitution* of the *Fix'd Stars*; for till this were done, there could be no hopes of attaining to the *true places* of the *Planets*, nor doing any thing to purpose in the whole *Science*. This ingaged the Noble *Tycho* to this Enterprise, and he made it the Foundation of all the rest: The Method he used is described by *Gassendus*. By the help of this noble Performance

he reformed the elder *Astronomical Tables*, both the *Ptolomaick* and *Copernican*. And from his Observations of the new Star of 1572, and six others in his time, he asserted *Comets* into their place among *Heavenly Bodies*, shattering all the *Solid Orbs* to pieces; And he hath done it with such *clear conviction*, that even the *Jesuits*, whose thraldom to the *Church* of *Rome*, deters them from closing with the *Motion* of *Earth*, confess a necessity of repairing to some other *Hypothesis* than that of *Ptolomy*, and *Aristotle*. I might add to this, That this *generous* Nobleman invented and framed such excellent *Astronomical Instruments*, as were for *use* and *convenience* far beyond *any* of former Times: Himself hath a Treatise concerning them. He hath also made exquisite *Tables* of the difference that *Refractions* make in the *appearance* of the *Stars*, and done more great things for *Astronomical Improvement*, than many *Ages* that were before him; for which reason I could not pardon my self in a curt mention of so glorious an Advancer of this Science.

The next Age after him, which is *ours*, hath made excellent *use* of his *Discoveries*, and those of his *Elder*, the famed *Copernicus*; and raised *Astronomy* to the noblest *height* and *Perfection* that ever yet it had among Men. It would take up a Volume to describe, as one ought, all the particular *Discoveries*: But my Design will permit but a short mention: Therefore briefly; I begin with *Galilæo*, the reputed Author of the famous *Telescope*; but indeed the glory of the *first Invention* of that excellent *Tube*, belongs to *Jacobus Metius* of *Amsterdam*: but 'twas improved by the noble *Galilæo*, and he first applied it to the *Stars*; by which *incomparable* Advantage, he discovered the *Nature* of the *Galaxy*, the 21 *New Stars* that compose the *Nebulosa* in the Head of *Orion*, the 36 that conspire to *that* other in *Cancer*, the *Ansulæ Saturni*, the *Asseclæ* of *Jupiter*, of whose *Motions* he composed an *Ephemeris*. By these *Lunulæ* 'tis thought that *Jupiters distance* from the *Earth* may be determined, as also the distance of *Meridians*, which would be a thing of much use, since this hath always been measured by *Lunar Eclipses*, that happen but once or twice a year; whereas opportunities of Calculating by the *occultations* of these *new Planets* will be *frequent*, they recurring about

about 480 times in the year. Besides, (to hasten) *Galilæo* discovered the strange *Phases* of *Saturn*, one while *ob-long*, and then *round*; the *increment* and *decrement* of *Venus*, like the *Moon*; the *Spots* in the *Sun*, and its *Revolution* upon its own *Axis*; the *Moons libration*, collected from the various *position* of its *Maculæ*; and divers other wonderful and useful Rarities, that were strangers to all *Antiquity*: Shortly after *Galilæo*, appears *Christopherus Scheiner*, who by greater *Telescopes* viewed the *Sun* with a *curled* and *unequal Superficies*, and in or near the *Horizon* of an *Elliptical Figure*. He found also, That *that supposed uniform* Globe of Light, was of a *different complexion* in its several parts; some *brighter* than the main Body, as the *Faculæ*, others *darker*, as the *Maculæ*. He made more than 2000 *Observations* of them, and described their *Number*, *Magnitude*, *Situation*, *Figure*, and *Revolutions*. *Kepler* is next to be mention'd, who first proposed the *Elliptical Hypothesis*, made very *accurate* and *luciferous Observations* about the *Motions* of *Mars*, and writ an *Epitome* of the *Copernican Astronomy*, in the clearest and most perspicuous Method, containing the Discoveries of others, and divers considerable ones of his own; not to mention his *Ephemerides*, and Book about Comets. *Ant. Maria Shirlæus*, with a new *Telescope* of a larger *Diameter* than ordinary, discovered five other *Stars* more remote from *Jupiter* than his *Satellites*, and a kind of *vapid Atmosphere* about that *Planet*. *Franciscus Fontana* observed the same *Star*, with nine others, never leaving it more than ten of its *Diameters*; and in *1636*, and *1643*. with 8. *Anno* 1645. with 5, *1646*. with 7. on other days with *6*. varying their distances one to another, and not to be seen about *Mars* or *Saturn*, nor without extending the *Telescope* more than was fitting for *Fix'd Stars*. These *Satellites* are observed to suffer a *defection* of their Light, when *Jupiter* interposeth between *them* and the *Sun*; whence it is inferr'd, That they have their Light from *It*, and that *Jupiter* hath *none* of his *own* to impart to them. To be brief, *Longomontanus* described the World according to all the *Hypotheses* of *Ptolomy*, *Copernicus*, and *Ticho Brahe*: *Jansonius Blaeu* made far more perfect and exact *Cœlestial Globes* than any were extant before: *Gassendus* writ judiciously of the *Stars* about *Jupiter*, and of

Mercury in the *Sun*, and gave the World most excellent *Astronomical Institutions*: *Ismael Bullialdus* inrich'd the Science with a new Method, to find and easily compute the *Paralaxes* of *Solar Ellipses*: *Hevelius* drew a *Graphical Description* of the *Moon* in all its *Phases*, as it appear'd in the *Telescope*, accurately delineating its *Spots*, and shewing the *inequality* and *mountanous protuberances* of its Surface, which lends Light to a great *Theory*. Both these last named are Fellows of the *ROYAL SOCIETY*. Of the *Selenography* of *Hevelius*, *Ricciolus* made an *Improvement*, both as to the *Number*, *Figure*, *Magnitude*, *Site*, *Colour* of the *Maculæ*, and the *Eminencies*, *Profundities*, and *Asperities* of the *Lunar Superficies*. *Martinus Hortensius* found *Mercury* to have variety of *Phases*, like the *Moon*; as, now *Horned*, then *Gibbous*, and at other times *Round*. But I conclude this Account with the most Worthy and Learned Prelate Dr. *Seth Ward*, now Lord Bishop of *Sarum*, who among his other excellent Performances in *Astronomy*, hath *demonstratively* proved the *Elliptical Hypothesis*, which is the most *plain* and *simple*, and performed by fewer Operations than either of the other. This indeed was *first* discours'd of by *Kepler*, advanced by *Bullialdus*, but *demonstrated* by this *accomplish'd* and *venerable* Bishop, an Honourable Member of the *ROYAL SOCIETY*.

I come next (5.) To consider the **Opticks**, whose *Improvements* are of great importance in the Matters of *general Philosophy* and *humane* Life; since the *informations* of *Sense* are the ground of *both*, and *this Science* rectifies and helps the noblest of them. Concerning it, there was once a Book of *Aristotle*'s extant, according to *Laertius*: but it hath submitto *Time*. Since him, this Science hath been cultivated by *Euclide*, and the celebrated *Archimedes*, who is said to have done strange things by it, upon the Ships of *Marcellus*: As *Proclus* who improved the *Archimedian Artifices*, destroyed a Fleet by his *Specula Ustoria*, that besieged *Constantinople*. *Ptolomy* of *Alexandria* made considerable *Improvements* of *Opticks*; and *Alhazenus* the *Arabian*, is famous for what he did in It. From *these*, *Vitellio* drew *his*, and advanced the *Science* by his *own* Wit, and *their* Helps. *Stevinus* corrected

Euclide,

Euclide, *Alhazen*, and *Vitellio*, in ſome *fundamental Propoſitions* that were miſtakes; and in their room ſubſtituted conſiderable Inventions of his own. *Roger Bacon* our fam'd Country-man (whom *Picus Mirandula* calls the *Phœnix* of his Age, and *Voſſius*, one *Learned* to a *Miracle*) writ acutely of *Opticks*. He was accuſed of *Magick* to Pope *Clement* iv. and thereupon impriſoned: But the Accuſation was founded on nothing but his skill in *Mathematicks*, and the *ignorance* of his *Accuſers*. After *theſe*, the *Dioptricks* were improved by *Kepler*, *Gaſſendus*, *Merſennus*, and the noble and incomparable *Des-Cartes*, who hath ſaid the moſt *clear*, *uſeful*, and *improvable* things about it, that ever were extant on the Subject. But nothing hath ſo much advanc'd the Science, as the invention of the *Teleſcope* by *Metius*; and *that* other of the *Microſcope*, concerning which I have to ſay in the following Inſtances. I paſs therefore to the *laſt* I ſhall mention in the *Mathematicks*, which is,

(VI.) **Geography.** In *this* the *Ancients* were exceedingly *defective*. And *Ariſtotle knew the World*, by the ſame *Figure* by which his *Scholar conquer'd* it. 'Tis noted by the ingenious *Varenius*, that the moſt *general* and *neceſſary* things in *this Science* were then *unknown*; as, The *Habitableneſs* of the *Torrid Zone*; The *flux* and *reflux* of the *Sea*; The *diverſity* of *Winds*; The *Polar Property* of the *Magnet*; The *true Dimenſion* of the *Earth*. They wanted *Deſcriptions* of remote *Countries*, concerning which both the *Greeks* and *Romans* had very *fabulous Relations*. They knew not that the *Earth* was *encompaſſed* by the *Sea*, and that it might be *Sailed round*. They were totally ignorant of *America*, and both the *North* and *South* parts of this *Hemiſphere*; yea, and underſtood very little of the *remoter* places of their own *Aſia*: *Japan*, the *Java's*, the *Philippicks*, and *Borneo*, were either not at all *known*, or exceeding *imperfectly* of *old*: But all *theſe* are *familiar* to the *latter Times*: *Mexico* and *Peru*, and the *vaſt Regions* of thoſe *mighty Empires*, with the many *Iſles* of the *Great Sea* are diſcloſed: The *Frozen North*, the *Torrid Line*, and formerly *unknown South*, are *viſited*, and by their numerous *Inhabitants* found not to be ſo *inhoſpitable* and *unkind* to Men, as *Anti-*

quity believed. The *Earth* hath been *rounded* by *Magellan*, *Drake*, and *Candish*: The *great Motion* of the *Sea* is *vulgar*, and its *Varieties* inquiring into every day: The *diversities* of *Winds stated*, and better underſtood: The *Treaſure* of *hidden* Vertues in the *Loadſtone* found and uſed. The *Spicy Iſlands* of the *Eaſt*, as alſo *thoſe* of the *remote South* and *North*, *frequented*, and the knowledge of that *People* and thoſe *Countries* tranſmitted to us, with their *Riches*; The moſt diſtant Parts being travell'd and deſcrib'd. Our *Navigation* is far *greater*, our *Commerce* is more *general*, our *Charts* more *exact*, our *Globes* more *accurate*, our *Travels* more *remote*, our *Reports* more *intelligent* and *ſincere*; and conſequently our *Geography* far more *perfect*, than it was in the *elder Times* of *Polybius* and *Poſſidonius*, yea than in thoſe of *Ptolomy*, *Strabo*, and *Pomponius Mela*, who lived among the *Cæſars*. And if it was ſo *ſhort* in the *flouriſhing* Times of the *Roman Empire*, how was it *before* in the days of *Ariſtotle*, and the *Græcians*? We have an Inſtance of it in the *Great Macedonian*, who thought the *Bounds* of his *Conqueſts* to be the *end* of the *World*; when there were *Nations* enough beyond him to have *eaten* up the *Conqueror* with his *proud* and *triumphant* Armies. So that here alſo *Modern Improvements* have been *great*; and He will think ſo, that ſhall compare the *Geographical Performances* of *Gemma Friſius*, *Mercator*, *Ortelius*, *Stevinus*, *Bertius*, and *Guil. Blaeu*, with the beſt Remains of the moſt celebrated *Geographers* of the more *ancient* Ages.

Thus I have touched upon ſome of the *Improvements* of the *ARTS* that ſearch into the *receſſes* of *Nature*, with which *latter Ages* have aſſiſted *Philoſophical* Inquiries. And in theſe I ſee I have ſtruck farther than I was aware into the account of thoſe things alſo, which lead us to the *groſſer Phænomena*; and my Remarques about *Geography* are all of that nature. However I ſhall not alter my Method; but after I have diſcours'd the **Inſtruments** I mentioned for Uſeful Knowledge, I ſhall conſider ſomewhat of *NATURAL HISTORY*, which reports the *Appearances*, and is *fundamentally neceſſary* to all the Deſigns of *Science*. As for the *INSTRUMENTS* then,

then, that are next, before I come to the Notes I intend concerning them, I observe, That

The *Philosophy* that must signifie either for *Light* or *Use*, must not be the *work* of the *Mind* turned in upon *it self*, and only conversing with its own *Idea's*; but *It* must be raised from the *Observations* and *Applications* of *Sense*, and take its Accounts from Things as they are in the *sensible World*. The Illustrious Lord *Bacon* hath noted this as the chief cause of the unprofitableness of the *former Methods* of *Knowledge*, *viz.* That *they* were but the *Exercises* of the *Mind*, making *Conclusions*, and spinning out Notions from its own *native Store*; from which way of proceeding nothing but *Dispute* and Air could be expected. 'Twas the fault that Great Man found in the Ancients, That they flew presently to *general Propositions*, without staying for a *due information* from Particulars, and so *gradually* advancing to *Axioms*: Whereas the *Knowledge*, from which any thing is to be hoped, must be laid in *Sense*, and raised not only from some few of its *ordinary* Informations; but *Instances* must be *aggregated*, *compared*, critically *inspected*, and *examined*; *singly*, and in *consort*: In order to which Performances our *Senses* must be *aided*; for of themselves they are too narrow for the *vastness* of things, and too *short* for *deep Researches*: They make us very *defective* and *unaccurate Reports*, and many times very *deceitful* and *fallacious ones*: I say therefore, *they* must be assisted with *Instruments*, that may *strengthen* and *rectifie* their Operations. And in *these* we have mighty *advantages* over *Aristotle* and the *Ancients*; so that much greater things may well be expected from *our Philosophy*, than could ever have been performed by *theirs*; though we should grant them all the *superiority* of *Wit* and *Understanding* their fondest Admirers would ascribe to those *Sages*: For a *weak hand* can move more *weight* by the help of *Springs*, *Wheels*, *Leavers*, and other *Mechanick Powers*, than the *strongest* could do without them: And that we really have these *Advantages*, must be shewn by *Instance*: I mentioned *Five* that are considerable to that purpose, which I took notice of among many others; and they were the **Telescope**, **Microscope**, **Thermometer**, **Barometer**, and **Air Pump**.

 (I.) The

(I.) The Telescope is the most excellent *Invention* that ever was, for assisting the *Eye* in *remote Discoveries*. The *distance* of the Heavens is so *vast*, that our *unaided Senses* can give us but extreamly imperfect Informations of that Upper World; And the *Speculations* that *Antiquity* hath raised upon them, have for the most part been very *mean*, and very *false*: But these excellent *Glasses* bring the *Stars* nearer to us, and acquaint us better with the *immense Territories* of *Light*: They give us more *Phænomena*, and *truer Accounts*; disperse the *shadows* and *vain Images* of the *twilight* of *naked Sense*, and make us a *clearer* and *larger prospect*: By these Advantages *they inlarge* our *Thoughts*, and shew us a more *magnificent Representation* of the *Universe*: So that by them the *Heavens* are made more *amply* to *declare* the *Glory* of *God*, and we are help'd to *nobler*, and better-grounded *Theories*: I have mentioned in my Account of the Advance of *Astronomy* some of the most remarkable *Discoveries* that have been made by *these Tubes*, which exceedingly transcend all the *Imaginations* of *elder* Times; and by the further improvement of them, other things may be disclosed as much beyond all *ours*. And the *present Philosophers* are so far from desiring that Posterity should sit down contented with their *Discoveries* and *Hypotheses*, that they are continually sollicitous for the gaining more *helps* to themselves, and *those* that shall follow, for a further progress into the knowledge of the *Phænomena*, and more *certain judgments* upon them. So that these *Glasses* are exceedingly *bettered* since their Invention by *Metius*, and *application* to the *Heavens* by *Galilæo*; and several ingenious Members of the *ROYAL SOCIETY* are now busie about improving them to a greater height: What success and informations we may expect from the *Advancements* of this *Instrument*, it would perhaps appear *Romantick* and *ridiculous* to say; As, no doubt, to have talk'd of the *Spots* in the *Sun*, and *vast inequalities* in the *Surface* of the *Moon*, and those other *Telescopical Certainties*, before the *Invention* of that *Glass*, would have been thought *phantastick* and *absurd*: I dare not therefore mention our *greatest hopes*: but this I adventure, That 'tis not unlikely but *Posterity* may by those *Tubes*, when they

are

are brought to *higher degrees* of *perfection*, find a *sure* way to determine those *mighty Questions*, *Whether the Earth move?* or, *the Planets are inhabited?* And who knoweth which way the *Conclusions* may fall? And 'tis probable enough, that another thing will at last be found out, in which this lower World is more immediately concerned, by *Telescopical Observations*, which is, the most desired *Invention* of *Longitudes*; upon which must needs ensue yet greater Improvements of *Navigation*, and perhaps the Discovery of the *North-West* Passage, and the yet *unknown South*: Whatever may be thought of these Expectations by vulgar and *narrow* Minds, whose *Theories* and *Hopes* are confin'd by their *Senses*, those that consider, that *one Experiment* discovered to us the vast *America*, will not *despair*. But 'tis time to pass from *this*, to a *second Modern Aid*, whereby our *Sight* is assisted, which is,

(II.) The **Microscope**: The *Secrets* of Nature are not in the *greater Masses*, but in those *little Threds* and *Springs*, which are too *subtile* for the *grosness* of our *unhelp'd Senses*; and by *this Instrument* our eyes are assisted to look into the *minutes* and *subtilties* of things, to discern the otherwise *invisible Schematisms* and *Structures* of *Bodies*, and have an advantage for the finding out of *Original Motions*; To perceive the *exactness* and *curiosity* of *Nature* in all its *Composures*; And from *thence* take *sensible Evidence* of the *Art* and *Wisdom* that is in its Contrivance; To disclose the *variety* of *living Creatures* that are shut up from our *bare Senses*, and open a kind of other World unto us, which its *littleness* kept unknown: *This Instrument* hath been exceedingly improved of late, even to the *magnifying* of Objects many *thousand* times; and divers useful *Theories* have been found and explicated by the *notices* it hath afforded; as appears by the *Microscopical* Writings of Dr. *Power* and Mr. *Hooke*, Members of the *ROYAL SOCIETY*.

But (III.) The **Thermometer** was another *Instrument* I mentioned, which discovers all the small *unperceivable variations* in the *heat* or *coldness* of the *Air*, and exhibits many rare and *luciferous Phænomena*, which may help to better Informations about those *Qualities*, than yet we have any. And as

to this, I observe with the great *Verulam*, and the other *Bacon* the Illustrious Mr. *Boyle*, That *Heat* and *Cold* are the *right* and *left* hand of *Nature* : The *former* is the great *Instrument* of most of her Operations ; and the *other* hath its *Interest* : And yet the *Philosophy* of *Aristotle* hath neither *done*, nor as much as *attempted* any thing toward the Discovery of their Natures ; but contented it self with the *jejune*, *vulgar*, and *general* description, *That Heat is a Quality that gathereth together things of a like nature, and severs those that are unlike* ; and *Cold congregates both.* But now if we will know any thing deeply in the business of *Rarefaction* and *Condensation*, the Doctrine of *Meteors*, and other material Affairs of Nature, other Accounts about these things must be endeavoured ; and the bare *informations* of our *Senses* are not *exact* enough for this purpose ; for their *Reports* in this kind are *various* and *uncertain*, according to the *temper* and *disposition* of our *Bodies*, and several *unobserved accidental Mutations* that happen in them. This *Instrument* therefore hath been invented to supply their *Defects* ; and it gives far more *constant* and *accurate*, though perhaps not always *infallible Relations* : but the justest are afforded by the *Sealed Thermometer*. And besides the *Uses* of this *Instrument* I suggested, it will help very much in framing the *History* of *Weather*, which may be applied to many excellent Purposes of *Philosophy*, and Services of *Life*.

But (IV.) The **Barometer** is another late *Instrument* very helpful to *Useful Knowledge* : That there is *gravity* even in the *Air* it self, and that *that Element* is only *comparatively light*, is now made evident and palpable by *Experience*, though *Aristotle* and his *Schools* held a different *Theory* : And by the help of *Quick-silver* in a *Tube*, the way is found to measure all the *degrees* of *Compression* in the *Atmosphere*, and to estimate exactly any *accession* of *weight*, which the Air receives from *Winds*, *Clouds*, and *Vapours* : To have said in Elder Times, That Mankind should light upon an Invention whereby those Bodies might be *weigh'd*, would certainly have appeared very *wild* and *extravagant* ; and it will be *so* accounted for some time *yet*, till Men have been *longer*, and are *better* acquainted with *this Instrument* : For we have no reason to believe it should have

have *better luck* than the *Doctrine* of the *Circulation*, the *Theory* of *Antipodes*, and all *great Discoveries* in their *first Proposals* : 'Tis impossible to perswade some of the *Indians* that live near the *heats* of the *Line*, that there is any such thing as *Ice* in the World ; but if you talk to them of *Water* made *hard* and *consistent* by *Cold*, they'l laugh at you as a *notorious Romancer* : And those will appear as *ridiculous* among the most of us, who shall affirm it *possible* to determine any thing of the *weight* of the *Wind* or *Clouds* : But *Experience* turns the *laugh* upon the *confident incredulity* of the *Scoffer* ; and he that will not *believe*, needs no more for his *conviction*, than the labour of a *Tryal* ; Let him then fill a *Tube* of *Glass* of some Feet in length with *Quick-silver* ; and having *sealed* one end, let him stop the other with his Finger, and *immerge that* which is so *stop'd* into a *Vessel* of *Mercury*, the *Tube* being *perpendicularly* erected ; let him then subtract his Finger, and he will perceive the *Quick-silver* to descend from the *Tube* into the *subjacent Vessel*, till it comes to 29 *Digits* or thereabouts ; *there*, after some *Vibrations*, it ordinarily *rests* : The reason that this remainder of the *Mercury* doth not *descend* also, is, because such a *Mercurial Cylinder* is just *equiponderant* to *one* of the *incumbent Atmosphere* that leans upon the *Quick-silver* in the *Vessel*, and so *hinders* a *further descent*. It is concluded therefore, That such a Cylinder of the Air as *presses* upon the *Mercury* in the *Vessel*, is of *equal weight* to about 29 *Digits* of that *ponderous Body* in the *Tube*. Thus it is when the *Air* is in its *ordinary temper* : But *Vapours*, *Winds*, and *Clouds*, alter the *Standard*, so that the *Quick-silver* sometimes *falls*, sometimes *rises* in the *Glass*, proportionably to the *greater* or *less accession* of *gravity* and *compression* the Air hath received from any of those *alterations* ; and the *Degree* of *Increase* beyond the *Standard* is the *measure* of the *additional gravity*. This *Experiment* was the *Invention* of *Torricellius*, and used to little more purpose at first, but to prove a *Vacuum* in Nature ; and the *deserted* part of the *Glass*-Tube was by many thought an *absolute void*, which I believe is a mistake : But it hath been since improved to this design of *weighing* the degrees of *compression* in the Air ; a thing that may signifie much, in giving us to understand its *temper* in several

ſeveral Places, on *Hills* and in *Caves*, in divers *Regions* and *Climates*, which may tend to the diſcloſing many excellent *Theories* and *Helps* in *Humane Life*. And the *Air* is ſo *Catholick* a Body, and hath ſo great an *influence* upon all *others*, and upon *ours*, that the advantage of ſuch an *Inſtrument*, for the better acquainting us with its *nature*, muſt needs be very conſiderable, and a good *Aid* to *general Philoſophy*. And who yet knows how *far*, and to what *Diſcoveries* this *Invention* may be improved? The World a long time only *rudely ſtar'd* upon the *Wonders* of the *Loadſtone*, before its *uſe* was found for the *advantage* of *Navigation*; and 'tis not impoſſible, but that *future Times* may derive ſo much *benefit* one way or other from *this Invention*, as may equal its *eſteem* to *that* of the *Compaſs*. The *ROYAL SOCIETY*, by their *Care* and *Endeavours* in the uſing this *Inſtrument*, give us hopes, that they will let none of its *uſeful Applications* to eſcape us: And I know not whether we may not mention it as the firſt great benefit we have from *it*, that it was an occaſion of the *Invention* of Mr. *Boyle*'s famous *Pneumatick Engine*: And this is the other *Inſtrument* I noted, and call'd

(V.) The **Air-Pump**: concerning the *uſefulneſs* of which, that excellent Perſon himſelf hath given the beſt Accounts, in his Diſcourſe of *Phyſico-Mechanical Experiments* made in that *Engine*, by which he hath diſcovered and proved a rare and *luciferous Theory*, *viz.* the *Elaſtick Power* or *Spring* of the *Air*, and by *this*, hath put to flight that *odd* Phancy of the *Fuga Vacui*; and ſhewn, that the *ſtrange Effects* which uſe to be aſcribed to that *general* and *obſcure cauſe*, do ariſe from the *native ſelf-expanſion* of the Air. The extent of which *Elaſtical Expanſion*, he hath found divers ways to meaſure by his *Engine*, which alſo diſcovers the *Influence* the *Air* hath on *Flame*, *Smoke*, and *Fire*; That it hath *none* in *Operations Magnetical*; That *it* is probably much *interſperſed* in the *Pores* of *Water*, and *compreſt* by the *incumbent Atmoſphere*, even in thoſe *cloſe retreats*; What Operation the *exſuction* of the *Air* hath on other *Liquors*, as *Oil*, *Wine*, *Spirit* of *Vinegar*, *Milk*, *Eggs*, *Spirit* of *Urine*, *Solution* of *Tartar*, and *Spirit* of *Wine*; The *gravity* and *expanſion* of the *Air* under *Water*;

The

The interest the *Air* hath in the *vibrations* of *Pendulums*, and what it hath to do in the *propagation* of *Sounds*; That *Fumes* and *Vapours ascend* by reason of the *gravity* of the *Ambient*, and not from their *own positive levity*; The nature of *Suction*, the *cause* of *Filtration*, and the rising of *Water* in *Siphons*; The nature of *Respiration*, and the *Lungs*, illustrated by tryals made on several kinds of *Animals*, and the interest the Air hath in the Operations of *Corosive Liquors*: *These*, and many more such-like *beneficial Observations* and Discoveries, hath that *great Man* made by the help of his *Pneumatick Engine*; and there is no doubt but *more*, and perhaps *greater* things will be disclosed by *it*, when *future ingenuity* and *diligence* hath improved and perfected this Invention. (For what great thing was *absolute* and *perfect* in its *first rise* and beginning?) And 'tis like this *Instrument* hereafter will be used and applyed to things yet unthought of, for the *advancement* of *Knowledge*, and the *conveniences* of *Life*.

THus I have performed the first part of my promise, by shewing what *Advantages* the *latter Ages*, and *particularly* the ROYAL SOCIETY have, for *deep search* into things both by **Arts** and **Instruments** *newly invented* or *improved*, above those enjoy'd by *Aristotle*, and the *Ancients*. I am next,

(II.) To recount what *Aids* it hath received from our *better* acquaintance with the *Phænomena*. For *this* I must consider NATURAL HISTORY more *particularly*, which is the *Repository* wherein these are lodg'd: How *this* may be compiled in the best order, and to the best advantage, is most judiciously represented by the *Immortal* Lord *Bacon*; and to shew how highly It hath been *advanced* in *modern Times*; I need say little more, than to amass, in a brief *Recollection*, some of the *Instances* of *newly-discovered Phænomena*, which are scatter'd under the Heads of the *Arts* and *Instruments* I have discours'd, with the *Addition* of some others: As,

In the HEAVENS, *those* of the *Spots* and *Dinettick motion* of the *Sun*, the *mountanous protuberances* and *shadows*

in the Body of the *Moon*, about *nineteen Magnitudes* more of *Fixed Stars*, the *Lunulæ* of *Jupiter*, their *mutual Eclipsing* one another, and *its turning* round upon its own *Axis*; the *Ring* about *Saturn*, and its *shadow* upon the Body of *that Star*; the *Phases* of *Venus*, the *increment* and *decrement* of *Light* among the *Planets*, the *appearing* and *disappearing* of *Fixed Stars*, the *Altitude* of *Comets*, and nature of the *Via Lactea*: By *these Discoveries*, and more such, the *History* of the *Heavens* hath been *rectified*, and *augmented* by the Modern Advancers of *Astronomy*, whom in their places I have cited. In the *AIR*; *Its Spring*, the more *accurate History* and Nature of *Winds* and *Meteors*, and the *probable height* of the *Atmosphere*, have been added by the Lord *Bacon*, *Des-Cartes*, Mr. *Boyle*, and others. In the *EARTH*, *New Lands* by *Columbus*, *Magellan*, and the rest of the Discoverers; and in these, *new Plants*, *new Fruits*, *new Animals*, *new Minerals*, and a kind of *other World* of *Nature*, from which *this* is supplied with numerous *conveniences* of *Life*, and many thousand Families of our own *little one* are continually fed and maintained. In the *WATERS*, the *great Motion* of the *Sea*, unknown in elder Times, and the *particular* Laws of *flux* and *reflux* in many places, are discover'd. The *History* of *BATHES augmented* by *Savonarola*, *Baccius*, and *Blanchellus*; of *METALS* by *Agricola*; and the whole *SUBTERRANEOUS WORLD* described by the universally Learned *Kircher*. The History of *PLANTS* much improved by *Matthiolus*, *Ruellius*, *Bauhinus*, and *Gerard*, besides the late Account of *English Vegetables* publish'd by Dr. *Merret*, a worthy Member of the *ROYAL SOCIETY*. And another excellent *Virtuoso* of the same Assembly, Mr. *John Evelyn*, hath very considerably *advanced* the *History* of *Fruit* and *Forest-Trees*, by his *Sylva* and *Pomona*; and greater things are expected from his *Preparations* for *Elysium Britanicum*, a noble Design now under his hands: And certainly the *inquisitive World* is much indebted to this *generous* Gentleman for his very *ingenious* Performances in *this* kind, as also for those others of *Sculpture*, *Picture*, *Architecture*, and the like *practical useful* things with which he hath enrich'd it. The *History* of *ANIMALS* hath been much enlarged

ged by *Gesner*, *Rondeletius*, *Aldrovandus*, and more accurately inquir'd into by the *Micrographers*: And the *late* Travellers, who have given us Accounts of those *remote* parts of the *Earth*, that have been less known to *these*, have described great *variety* of *Living Creatures*, very different from the *Animals* of the *nearer Regions*; among whom the *ingenious* Author of the *History* of the *Caribbies* deserves to be mentioned as an Instance. In our own *BODIES Natural History* hath found a rich heap of Materials in the above-mentioned Particulars of the *Venæ Lacteæ*, the *Vasa Lymphatica*, the *Valves* and *Sinus* of the *Veins*, the several *new Passages* and *Glandules*, the *Ductus Chyliferus*, the *Origination* of the *Nerves*, the *Circulation* of the *Blood*, and the rest. And all the main Heads of *Natural History* have receiv'd *aids* and *increase* from the famous *Verulam*, who led the way to *substantial Wisdom*, and hath given most excellent *Directions* for the Method of such an *HISTORY* of *NATURE*.

Thus I have dispatch'd the *FIRST Part* of my *Method* proposed in the *beginning*; but stand yet ingaged for the *other*, which is to shew,

(II.) That the *later* Ages have great *Advantages*, in respect of Opportunities and Helps for the *spreading*, and *communicating* of *Knowledge*, and thereby of improving and enlarging it. This I shall demonstrate in three great Instances, *viz.* **Printing**, the **Compass**, and the Institution of the **Royal Society**.

For the FIRST, **Printing**; It was, according to *Polydore Virgil*, the *Invention* of *John Cuthenberg* of *Mentz* in *Germany*, though others give the honour to one *Fust* of the same City, and some to *Laurentius* a Burger of *Harlem*. But whoever was the *Author*, this is agreed, That this excellent *Art* was *first practised* about the year 1440, and was utterly unknown in *Elder Times*; at least in all the parts of the World that are on this side the Kingdom of *China*, which they say had it more *early*; but it signifies not to our purpose. Now by reason of the *Ancients* want of *this Invention*, *Copies*

of excellent things could not be so much *dispersed*, nor so well *preserv'd* either from the *Corruptions* of *Time*, and *Interest*. The *Charge* of *Books* was very *great*, *Forgeries frequent*, and *Mistakes* of *Transcribers numerous*: They were quickly swept away out of those few *Libraries* in which they were, by *Fire* and *Violence*, or *spoiled* by *Dust* and *Rottenness*. And in the *absence* of this *Art*, 'twas easie enough for one *Aristotle* to *destroy* the most considerable *Remains* of the *Ancients*, that the power of his *great* Scholar put into his hands; which, 'tis credibly reported of him, that he did, to procure more *fame* for his *own* Performances: as also to *conceal* his *thefts*, and *injurious* dealings with those *venerable* Sages, whom he seems to take a great delight to *contradict* and *expose*, as I have elsewhere proved. But *now*, by this *excellent Invention*, the Knowledge that is lodged in *Books*, is put beyond the danger of such *Corruptions*, *Forgeries*, or any *fatal inconvenience*: We *communicate* upon *easie* terms at the *remotest distance*; *converse* with the *Wise Men* that went *before* us, and *securely* convey down our Conceptions to the *Ages* that shall follow. So that by this means *Knowledge* is advantagiously *spread* and *improved*; especially since the *Assistance Modern Ingenuity* hath brought us, in that other *admirable Invention*,

(2.) The **Compass**. How *defective* the *Art* of *Navigation was* in *elder* Times, when they *sailed* by the *observation* of the *Stars*, is *easie* to be *imagin'd*: For in dark weather, when their *Pleiades*, *Helice*, and *Cynosura* were hidden from them by the *intervening Clouds*, the *Mariner* was at a loss for his *Guide*, and exposed to the *casual* conduct of the *Winds* and *Tides*. For which reason the *Ancients* seldom or never durst venture into the *Ocean*, but steer'd along within sight of the *safer* Shore. So that the *Commerce* and *Communications* of *those Days* were very *narrow*; Their *famed Travels* in *comparison* were but *domestick*; and a *whole World* was to *them* unknown. But it hath been the happy priviledge of *later* Days to find the way to apply the *wonderful Vertues* of the *Loadstone* to *Navigation*; and by the direction of the *Compass* we securely commit our selves to the *immense Ocean*, and find our path in the *vastest Wilderness* of *Waters*. So that *Commerce* and

and *Traffique* is infinitely *improved*; the *other* half of the Globe *disclosed*; and *that* on this side the *great Sea*, *better* understood: The *Religions*, *Laws*, *Customs*, and all the *Rarities* and *Varieties* of *Art* and *Nature*, which any the most distant Clime knows and enjoys, are *laid open* and made *common*; and thereby the *History* of *Nature* is wonderfully *inlarged*, and *Knowledge* is both *propagated* and *improved*.

Who it was that *first* discovered this excellent *Mystery*, is not certainly known: But one *Flavius Goia* of *Amalphis* in the Kingdom of *Naples*, is said to be the *Author*; and to have found this incomparable *Rarity* about 300 years ago. 'Tis pity that one of the *greatest Benefactors* to Mankind that ever was, should lie hid in so *neglected* an *obscurity*; when the great *Troublers* of the World, who have vex'd it by the *Wars* of the *Hand*, and of the *Brain*, have so *dear* and so *precious* a Memory. For my part I think there is more acknowledgment due to the name of this *obscure* Fellow, that hath scarce *any* left, than to a thousand *Alexanders* and *Cæsars*, or to ten times the number of *Aristotle*'s and *Aquinas*'s. And *he* really *did more* for the *increase* of *Knowledge*, and *advantage* of the World by this one *Experiment*, than the numerous *subtile Disputers* that have lived ever since the *erection* of the *School* of Wrangling.

And methinks it may not be improper for me here to take notice of that other great *German Invention*, that useth to be mentioned in the Company, *viz.* *That* of **Gun-powder** and **Artillery**, which hath done its *Service* also for the *help* and *propagation* of *Knowledge*, as you will perceive when you shall consider; that by the assistance of these *terrible Engines* of *Death*, the great *Western Indies* were presently subdued, which likely had not been so easily effected by the *ancient* and *ordinary Methods* of *War*. 'Twas this *Thunder* and *Lightning*, and the *invisible Instruments* of *Ruine*, that destroyed the *Courage* of those *numerous* and *hardy People*, took away the *hearts* of the *strongest Resisters*, and made them an *easiy Prey* to the *Conquering Invaders*.

And now by the gaining that mighty *Continent*, and the numerous *fruitful Isles* beyond the *Atlantick*, we have ob-

tained

tained a *larger* Field of *Nature*, and have thereby an *advantage* for *more Phænomena*, and *more helps* both for *Knowledge*, and for *Life*; which 'tis very like that *future Ages* will make better uſe of to ſuch Purpoſes, than thoſe hitherto have *done*; and that *Science* alſo may at laſt travel into *thoſe* Parts, and inrich *Peru* with a more *precious Treaſure* than *that* of its *Golden* Mines, is not improbable. And ſo theſe *Engines* of *Deſtruction*, in a *ſenſe* too are *Inſtruments* of *Knowledge*. Of the *firſt Author* of *this Experiment* we know no more, but that he was a *German Monk*, who lighted on it by *chance*, when he was making ſome *Chymical Tryals* with *Nitre*, near about the time of the *Invention* of the *Compaſs*; but his *Name* and other *Circumſtances* are loſt.

Now whoever conſiders, with the Noble *Virulam*, how much the *ſtate* of things in the World hath been *altered* and *advanced* by theſe *THREE EXPERIMENTS* alone, will conceive great hopes of Modern *Experimental Attempts*, from which greater Matters may be looked for, than *thoſe* which were the *Inventions* of *Single Endeavourers*, or the *Reſults* of *Chance*.

And of all the *Combinations* of Men that ever met for the *Improvement* of *Science*, there were never any whoſe *Deſigns* were *better laid*, whoſe *Abilities* were more *promiſing*, or whoſe *Conſtitution* was more *judiciouſly* or *advantageouſly* formed, than the *ROYAL SOCIETY*.

This Noble *Inſtitution* was the *THIRD Advantage* I mentioned, that the *Modern World* hath for the *Communication* and *Increaſe* of *Knowledge*. And here I find I am happily prevented, and need not ſay much about it; For the *HISTORY* of their *Conſtitution* and *Performances* that is abroad, gives *ſo full* and *ſo accurate* an Account of them and their *Deſigns*, that perhaps it may be *ſuperfluous* to do more in *This*, than to recommend that *excellent Diſcourſe* to the peruſal of thoſe that would be informed about thoſe *Matters*; which I do with ſome more than ordinary zeal and concernment, both becauſe the Subject is one of the moſt weighty, and conſiderable, that ever afforded Matter to a *Philoſophical* Pen, and becauſe it is writ in a way of ſo *judicious* a *gravity*, and ſo *prudent*

dent and *modest* an *expression*, with so much *clearness* of *sense*, and such a *natural fluency* of *genuine Eloquence*, that I know it will both *profit* and entertain the Ingenious. And I say further, That the *Style* of that Book hath all the *Properties* that can recommend any thing to an *ingenious relish*: For 'tis *manly*, and yet *plain*; *natural*, and yet not *careless*; The *Epithets* are *genuine*, the *Words proper* and *familiar*, the *Periods smooth* and of *middle* proportion: It is not *broken* with *ends* of *Latin*, nor *impertinent Quotations*; nor made *harsh* by *hard* words, or *needless terms* of *Art*: Not rendred *intricate* by long *Parentheses*, nor *gaudy* by *flanting Metaphors*; not *tedious* by *wide fetches* and *circumferences* of *Speech*, nor *dark* by too much *curtness* of *Expression*: 'Tis not *loose* and *unjointed*, *rugged* and *uneven*; but as *polite* and as *fast* as *Marble*; and briefly, avoids all the *notorious defects*, and wants none of the *proper Ornaments* of Language. In this excellent History the Inquisitive may find what were the Reasons of forming such a *Combination* as the *ROYAL SOCIETY*, what is the *Nature* of that *Constitution*, what are their *Designs*, and *what they have done*. For there is *Collection* of some (among numerous others that are in their *Repository*) of the *Experiments*, *Observations*, and *Instruments* which they have invented and advanced for the *improvement* of *real*, *useful* Knowledge, and a full *vindication* of the Design, from the *dark suspicions* and *objections* of *jealousie* and *ignorance*.

BUT that I may not wholly refer my Reader, which may look like a put-off, I'le here offer something concerning this *Establishment*, as it is an *Advantage* for the *communication* and *increase* of *Science*. I say then, That it was observed by the excellent Lord *Bacon*, and some other *ingenious Moderns*, That *Philosophy*, which should be an *Instrument* to *work* with, to find out those *Aids* that *Providence* hath laid up in Nature to help us against the *Inconveniences* of *this* State, and to make such *applications* of things as may tend to *universal benefit*; I say, They took notice, that instead of such a *Philosophy* as *this*, *That* which had *usurp'd* the *Name*, and obtained in the *Schools*, was but a *combination* of *general Theories*, and *Notions*, that were concluded *rashly*, without *due information* from *particulars*, and spun out into unprofitable *Niceties*, that tend to *nothing*

thing but *Dispute* and *Talk*, and were never like to advance any *Works* for the *benefit* and *use* of Men.

This being consider'd, the *deep* and *judicious Verulam* made the *complaint*, represented the *defects* and unprofitableness of the *Notional* way, proposed *another* to *reform* and inlarge *Knowledge* by *Observation* and *Experiment*, to *examine* and *record Particulars*, and so to rise by degrees of *Induction* to *general Propositions*, and from *them* to take *direction* for *new Inquiries*, and *more Discoveries*, and other *Axioms*; that our Notions may have a *Foundation* upon which a *solid Philosophy* may be built, that may be *firm*, *tite*, and close *knit* and suited to the *Phænomena* of things: So that *Nature* being *known*, it may be *master'd*, *managed*, and *used* in the Services of Humane Life.

This was a *mighty Design*, *groundedly laid*, *wisely exprest*, and *happily recommended* by the *Glorious Author*, who *began nobly*, and *directed* with an *incomparable conduct* of *Wit* and *Judgment*: But to the carrying of it on, It was necessary there should be many *Heads* and many *Hands*, and *Those* formed into an *Assembly*, that might *intercommunicate* their *Tryals* and *Observations*, that might joyntly *work*, and joyntly *consider*; that so the *improvable* and *luciferous Phænomena*, that lie scatter'd up and down in the *vast Campaign* of *Nature*, might be *aggregated* and brought into a *common* Store. This the *Great* Man *desired*, and form'd a *SOCIETY* of *Experimenters* in a *Romantick Model*, but could do no more; His time was not ripe for such Performances.

These things therefore were consider'd also by the later *Virtuosi*, who several of them join'd together, and set themselves on work upon this *grand* Design; in which they have been so happy, as to obtain the *Royal Countenance* and *Establishment*, to gather a great Body of *generous* Persons of all *Qualities* and sorts of *Learning*, to overcome the *difficulties* of the *Institution*, and to make a very encouraging and hopeful *progress* in their pursuits: For the account of which Particulars, I refer to the *History*, and only take notice, How ignorantly those *rash* and *inconsiderate* People talk, who speak of this *Assembly* as if they were a company of Men whose only aim is to set up some *new Theories* and *Notions* in *Philosophy*; whereas indeed, Their

first

first and *chief* Employment is, carefully to *seek* and faithfully to *report* how things are *de facto*; and they continually declare against the *establishment* of *Theories*, and *Speculative Doctrines*, which they note as one of the most considerable *miscarriages* in the *Philosophy* of the Schools: And their business is not to *Dispute*, but *Work*. So that those others also that look on them as pursuing *phansyful Designs*, are as *wide* and *unjust* in their ill-contriv'd *Censure*: Since Their *Aims* are to free *Philosophy* from the vain *Images* and *Compositions* of *Phansie*, by making it *palpable*, and bringing it down to the *plain Objects* of the *Senses*; For those are the *Faculties* which they employ and appeal to, and complain that *Knowledge* hath too long hover'd in the *Clouds* of *Imagination*: So that methinks this *ignorant Reproach* is, as if those that doted on the *Tales* of the *Fabulous Age*, should clamour against *Plutarch* and *Tacitus* as idle *Romancers*. For the main intention of this *Society* is to erect a well-grounded *Natural History*, which takes off the *heats* of *wanton Phansie*, hinders its *extravagant Excursions*, and ties it down to *sober Realities*.

But we frequently hear an insulting Objection against this Philosophical Society, in the Question, **What have they done?**

To which I could *answer* in short, *more* than all the *Philosophers* of the *Notional way*, since *Aristotle* opened his *Shop* in *Greece*: Which Saying may perhaps look to some like a *fond* and *bold* Sentence: But whoever compares the *Repository* of *this Society*, with all the *Volumes* of **Disputers**, will find it neither immodest nor unjust: And their *History* hath given us Instances sufficient of their *Experiments*, *Observations*, and *Instruments*, to justifie a bolder Affirmation. But I insist not on *this*: The thing I would have observ'd is, That those who make the *captious Question*, do not comprehend the *vastness* of the Work of this *Assembly*, or have some *phantastical Imaginations* of *it*. They consider not that the *Design* is laid as *low* as the *profoundest Depths* of Nature, and reacheth as *high* as the *uppermost Story* of the *Universe*; That it extends to all the *Varieties* of the *great World*, and aims at the benefit of *universal Mankind*. For could they expect that such *mighty Projects* as *these* should *ripen* in a *moment*? Can a

Cedar ſhoot up out of the *Earth* like a *Blade* of *Graſs ?* or an *Elephant* grow to the *vaſtneſs* of his *bulk*, as ſoon as a little *Inſect* can be form'd of a *drop* of *Dew ?*

No ; The *true* knowledge of *general Nature*, like *Nature* it ſelf in its nobleſt *Compoſures*, muſt proceed *ſlowly*, by degrees almoſt *inſenſible :* and what *one* Age can do in ſo *immenſe* an Undertaking as *that*, wherein all the Generations of Men are concerned, can be little *more* than to remove the *Rubbiſh*, lay in *Materials*, and *put* things in *order* for rhe *Building. Our work* is to *overcome Prejudices*, to *throw aſide* what is *uſeleſs*, and yeelds no advantage for *Knowledge*, or for *Life* ; To perſwade Men that there is *worthier Imployment* for them, than *tying Knots* in *Bulruſhes* ; and that they may be better *accommodated* in a *well-built Houſe*, than in a *Caſtle* in the *Air :* We muſt *ſeek* and *gather*, *obſerve* and *examine*, and *lay up* in *Bank* for the Ages that come after. *This* is the buſineſs of the *Experimental Philoſophers* ; and in theſe Deſigns a *progreſs* hath been made ſufficient to ſatisfie *ſober expectations :* But for *thoſe* that look they ſhould give them the *Great Elixir*, the *Perpetual Motion*, the way to make *Glaſs malleable*, and *Man immortal* ; or they will object that the *Philoſophers* have done nothing : for ſuch, I ſay, their *impertinent Taunts* are no more to be regarded, than the *chat* of *Ideots* and *Children*.

But I think I am fallen into things of which the *Ingenious Hiſtorian* hath ſomewhere given better *accounts* ; However I ſhall briefly endeavour to ſhew the *injuſtice* of the Reproach of having *done nothing*, as 'tis applyed to the *Royal Scociety*, by a *ſingle* Inſtance in one of their *Members*, who alone hath done enough to oblige all Mankind, and to erect an *eternal Monument* to his *Memory*. So that had this *great Perſon* lived in thoſe days, when Men deified their *Benefactors*, he could not have miſs'd one of the firſt places among their *exalted Mortals :* And every one will be convinc'd that this is not *vainly* ſaid, when I have added, That I mean the *Illuſtrious* Mr. *BOYLE*, a Perſon by whoſe proper Merits that noble Name is as much *adorned*, as by all the *ſplendid Titles* that it wears : And that *this Honourable Gentleman* hath done ſuch things for the *benefit* of the *World*, and *increaſe* of *Knowledge*,

ledge, will easily appear to those that converse with Him in his excellent Writings.

(1.) In his *Book* of the *AIR*, we have a great *improvement* of the *Magdeburg Experiment*, of emptying *Glass Vessels* by *exsuction* of the *Air*, to far greater degrees of *evacuation*, *ease*, and *conveniences* for *use*; as also an *advance* of *that* other *famous* one of *Torricellius*, performed by the *New Engine*, of which I have said some things *above*, and call'd the *AIR-PUMP*. By *this Instrument* (as I have already intimated) the *Nature*, *Spring*, *Expansion*, *Pressure*, and *Weight* of the *Air*; the *decrease* of its *force* when *dilated*, the *Doctrine* of a *Vacuum*, the *Height* of the *Atmosphere*, the *Theories* of *Respiration*, *Sounds*, *Fluidity*, *Gravity*, *Heat*, *Flame*, the *Magnet*, and several other *useful* and *luciferous* Matters, are estimated, illustrated, and explain'd.

And (2.) The great Doctrine of the *Weight* and *Spring* of the *Air* is solidly vindicated and further asserted by the Illustrious *Author*, in another *BOOK* against *HOBS* and *LINUS*.

(3.) In his *PHYSIOLOGICAL* and *EXPERIMENTAL ESSAYS*, he nobly encourageth and perswades the making of *Experiments*, and collecting *Observations*, and gives the *necessary Cautions* that are to be used in such *Designs*. He imparts a very considerable *luciferous Experiment* concerning the *different parts* and *redintegration* of *Salt-petre*; whence he deduceth, That *Motion*, *Figure*, and *Disposition* of parts, may suffice to produce all the *secondary Affections* of Bodies; and consequently, That there is no need of the *substantial Forms* and *Qualities* of the Schools. To this he adds a close *History* of *Fluidity* and *Firmness*, which tends mightily to the *elucidating* of those useful *Doctrines*.

(4.) In his *SCEPTICAL CHYMIST* he cautions against the sitting down and acquiescing in *Chymical* and *Peripatetical Theories*, which many *do*, to the great hinderance of the *growth* and *improvement* of Knowledge. He therefore adviseth a more *wary* consideration and *examen* of those *Doctrines*, before they are subscribed; and for that purpose he assists them with many very considerable *Observations* and *Experiments*.

(5.) In his *USEFULNESS* of *EXPERIMENTAL PHILOSOPHY*, he makes it appear how much *that* way tends to the *advance* of the *Power* and *Empire* of *Man* over the *Creatures*, and the *universal* Benefit of the World; confirming and illustrating his Discourse with innumerable *new* and *useful Discoveries*.

(6.) In his *HISTORY* of *COLD*, he hath to wonder *cultivated* that *barren* Subject, and improved it (as is noted in the *Philosophical Transactions*) by near 200 choice *Experiments* and *Observations*. He hath there given an account of the *defectiveness* of common *Weather-Glasses*, the Advantages of the new *Hermetical Thermometers*, and an Inquiry concerning the cause of the *Condensation* of the *Air*, and *Ascent* of Water by *Cold* in the ordinary *Weather-wisers*; All which afford valuable *Considerations* of *Light* and *Use*. But these are only *Preliminaries*: The *main* Discourse presents us with an Account *what Bodies* are capable of *freezing* others, and *what* of *being frozen*; The ways to estimate the *degrees* of *coldness*; How to measure the *intenseness* of *Cold* produced by *Art*, beyond *that* imploy'd in ordinaty *Freezing*; In *what* proportion Water will be made to *shrink* by *Snow* and *Salt*; How to *measure* the change produc'd in Water between the *greatest heat* of Summer, the *first degree* of *Winter-cold*, and the *highest* of *Art*; How to discover the *differing* degrees of *Coldness* in *different* Regions. A way of *freezing* without danger to the Vessel. What may be the *effects* of *Cold*, as to the preserving or destroying the *texture* of Bodies. Whether *specifick Virtues* of *Plants* are lost through *congelation*, and then *thawing*. Whether *Electrical* and *Magnetick* Vertues are altered by *Cold?* The *expansion* and *contraction* of Bodies by *freezing*; how they are *caused*, and how their *quantity* is to be *measured*. The strength of the *expansion* of *Water freezing*, and an *Inquiry* into the *Cause* of that *prodigious force*. The *Sphere* of *Activity* of *Cold*. How far the *Frost* descends in Earth and Water. An *Experiment* shewing whether *Cold* can act through an *hot medium*. A way of accounting the *solidity* of *Ice*, and the *strength* of the *adhesion* of its *parts*: What *Liquors* are its *quickest Dissolvents*. An Experiment of *heating* a *cold Liquor* with *Ice*. *These*, and many more such in-

instructive and useful things, are contained in that excellent Discourse: To which is annex'd a very ingenious Examination and Disproof of the common obscure Doctrine of *Antiperistasis*, and Mr. *Hobbs* his *Notion* of *Cold*.

(7.) In his *EXPERIMENTAL HISTORY* of *COLOURS*, he hath laid a foundation in 150 *Experiments* at least, for *grounded Theory* about these Matters. He hath shewn the grand mistake of the common belief, That *Colours inhere* in their *Objects*; and proved they depend upon the *disposition* of the *external parts*, and the more *inward texture* of Bodies. He hath *stated* and *explained* wherein the *Disparity* consists between the *Real* and *Exphatical*; explicated the Nature of *Whiteness* and *Blackness*; rectified some *Chymical Principles*; *compounded* Colours by trajecting the *Solar Beams* through *tinged Glasses*; shewed how by certain *Tinctures* it may be known, whether any *Salt* be *acid* or *sulphureous*. Hath proved, there is no necessity of the *Peripatetick FORMS* for the production of *Colours*, by making *Green* by nine kinds of *mixtures*; compounded Colours *real* and *phantastical*; turned the *Blew* of *Violets* by *acid Salts* into a *Red*, and by the *alcalizate* into a *Green*; and performed many other extraordinary things on this Subject, for the *advantage* of Knowledge, and the *uses* of Life.

(8.) In his *HYDROSTATICAL PARADOXES* he shew'd, That the *lower* parts of *Fluids* are press'd by the *upper*; That a *lighter* may *gravitate* upon one that is more *ponderous*; That if a Body *contiguous* to *it*, be lower than the *highest* level of the *Water*, the lower end of the *Body* will be press'd *upwards* by the *Water beneath*; That the *weight* of an *external Fluid* sufficeth to raise the *Water* in *Pumps*; That the *pressure* of an *external Fluid* is able to keep an *Heterogeneous Liquor suspended* at the same *height* in several *Pipes*, though they are of different *Diameters*; That a Body under Water, that hath its *upper Surface parallel* to the *Horizon*, the direct pressure it sustains is no more than *that* of a *Columne* of Water, which hath the mentioned *Horizontal Superficies* for its *Basis*. And if the *incumbent* Water be contained in *Pipes* open at both ends, the pressure is to be estimated by the *weight* of a *Pillar* of *Water*, whose *Basis* is *equal* to the

the *lower Orifice* of the *Pipe* (*parallel* to the *Horizon*) and its *height* equal to a *Perpendicular*, reaching to the *top* of the *Water*, though the *Pipe* be much *inclined*, *irregularly* ſhaped, and in ſome parts *broader* than the Orifice; That a Body in a *Fluid* ſuſtains a *lateral preſſure* from it, which increaſeth in proportion to the *depth* of the *immerſt* Body in the *Fluid*; That *Water* may be made to *depreſs* a Body *lighter* than it ſelf; That a parcel of *Oil lighter* than *Water*, may be kept from *aſcending* in it; That the cauſe of the aſcenſion of *Water* in *Syphons*, may be explained without the *notion* of *abhorrence* of a *Vacuum*; That the *heavieſt Body known* will not ſink of it ſelf, without the aſſiſtance of the *weight* of the *Water* upon it, when 'tis at a *depth* greater than twenty times its own *thickneſs*, though it *will nearer* the *Surface*.

This is the ſum of the general Contents of *that Diſcourſe*, which contains things very uſeful to be known for the advantage of *Navigation*, *Salt-Works*, *Chymiſtry*, and other *practical* purpoſes.

(9.) In his Book of the *ORIGINE* of *FORMS* and *QUALITIES*, he delivers the minds of Men from the *imaginary* and *uſeleſs Notions* of the *Schools* about them, which have no *foundation* in the *nature* of things, nor do any ways promote Knowledge, or help Mankind; but very much diſſerve thoſe great Intereſts, by ſetting the Underſtanding at reſt in *general obſcurities*, or imploying it in *airy Nicities* and *Diſputes*, and ſo hindring its purſuit of *particular Cauſes*, and *Experimental Realities*. In *this* Treatiſe he lays the *Foundations* and delivers the *Principles* of the *Mechanick Philoſophy*, which he ſtrengthneth and illuſtrates by ſeveral very *pleaſant* and *inſtructive Experiments*. He ſhews, That the moſt admirable Things which have been taken for the *Effects* of *ſubſtantial Forms*, and are uſed as proofs of the *Notional Hypotheſes*, may be the reſults of the meer *texture* and *poſition* of *parts*; ſince *Art* is able to make *Vitriol*, as well as *Nature*; and Bodies by *humane skill* may be produced, whoſe ſuppoſed *Forms* have been deſtroyed. He gives many very ingenious inſtances to prove, That the *Mechanick Motions* and *order* of the *Parts* is ſufficient to yeeld an account of the *difference* of *Bodies*, and their *affections*, without having recourſe to the

Forms

Forms and *Qualities* of the Schools; as in the *restoration* of *Camphire* to its former *smell* and *nature*, after its *dissolution* and seeming *extinction*; in the *changes* of the *colour*, *consistence*, *fusibleness*, and other *Qualites* of *Silver* and *Copper*; in the *odd Phænomena* of a certain *anomalous Salt*, and *those* of the *Sea-Salt*, dried, powder'd, and mix'd with *Aqua-Fortis*; and in the *Sal Mirabilis*, in the production of Silver out of Gold by his *Menstruum Peracutum*, in the *transmutation* of *Water* into *Earth* in a certain *Distillation* of *Spirit* of *Wine*, and *Oil* of *Vitriol*. I say, This excellent Person hath by *Experiments rare* and *new* about these Subjects, made it evidently appear, That the *internal motions*, *configuration*, and *posture* of the *parts*, are *all* that is *necessary* for *alterations* and *diversities* of *Bodies*; and consequently, That *substantial* Forms and *real Qualities* are *needless* and *precarious* Beings.

These are some *brief* and *general* Hints of those great things this incomparable Person hath done for the *information* and *benefit* of Men; and besides them, there are several others that He hath *by* him, and the Inquisitive expect, in which *real Philosophy* and the World are no less concern'd. I received a late Account of them from an ingenious Friend of his, Mr. *Oldenburgh*, *Secretary* to the *ROYAL SOCIETY*, who also renders himself a great *Benefactor* to *Mankind*, by his *affectionate* care, and *indefatigable* diligence and endeavours, in the maintaining *Philosophical* Intelligence, and promoting the Designs and Interests of *profitable* and *general* Philosophy. And *these* being some of the *Noblest* and most *Publick* Imployments, in which the Services of generous Men can be ingaged, *loudly* call for their *Aids* and *Assistances*, for the carrying on a *Work* of so *universal* an *importance*.

But I shall have a fitter place to speak of *this*, and therefore I return to the *Illustrious* Person of whom I was discoursing. And for *Philosophical News*, and further *evidence* of the *Obligation* the World hath to this *Gentleman*; I shall here insert the Account of what he hath *more*, yet *unpublish'd*, for its advantage and instruction. And I take the boldness to do it, because himself hath been pleased to *quote* and refer to those Discourses in his publish'd Writings; concerning which,

M. O's

M. O's Account is more *particular*, and he receiv'd it from the Author. It ſpeaks thus:

(1.) Another *Section* of the *Uſefulneſs* of *Experimental Philoſophy*, as to the *Empire* of *Man* over *inferiour* Creatures; where he intends to premiſe ſome *general Conſiderations* about the *Means* whereby *Experimental Philoſophy* may become *uſeful* to Humane Life; proceeding thence to ſhew, That the *Empire* of *Man* may be promoted by the *Naturaliſts* skill in *Chymiſtry*, by his skill in *Mechanicks*, or the *Application* of *Mathematicks* to *Inſtruments* and *Engines*; by his skill in *Mathematicks*, both *pure* and *mixt*: That the *Goods* of Mankind may be much increaſed by the *Naturaliſt*'s inſight into *Trades*; That the *Naturaliſt* may much advantage Men, by exciting and aſſiſting their *curioſity* to *diſcover*, *take notice*, and make *uſe* of the *home-bred Riches* and Advantages of *particular* Countries, and to increaſe their number, by transferring thither *thoſe* of others; That a *ground* of high *expectation* from *Experimental Philoſophy* is given, by the happy *Genius* of *this preſent* Age, and the *productions* of it; That a ground of expecting conſiderable things from *Experimental* Philoſophy is given by thoſe things which have been found out by *illiterate Tradeſmen*, or lighted on by *chance*; That ſome *peculiar* and *concealed* property of a *natural* thing, may inable the *knowers* of it to perform, with *eaſe*, things, that to others ſeem either not *feaſible*, or not *practicable* without great *difficulty*; That by the *knowledge* and *application* of ſome *unobvious* and *unheeded Properties* and *Laws* of natural things, divers *Effects* may be produced by other *Means* and *Inſtruments* than thoſe one would judge *likely*; and even by *ſuch*, as if propoſed, would be thought *unlikely*; That the *knowledge* of *peculiar* Qualities, or uſes of *Phyſical* things, may inable a Man to perform thoſe things *Phyſically*, that ſeem to require *Books*, and *dexterity* of hand proper to *Artificers*; That the *uſes* of ſcarce *one* thing in Nature, to Humane Life, are yet *thorowly* underſtood; That a great Inducement to hope for conſiderable Matters from *Experimental Philoſophy*, may be taken from the *mutual* aſſiſtance that the *Practical* and *Theorical* part of *Phyſick* may be brought to afford each other; That we are not to make our *Eſtimates* of what may be *hoped* for hereafter, when Men ſhall be aſſiſted

with

with the *History* of *Nature*, a *method* of imploying it, and true *Principles* of *Natural* Philosophy, and *associated* Endeavours, by what is already *performed* without any of those *Assistances*. (2.) He hath also in a manner promised *Essays* touching the *concealments* and disguises of the *Seeds* of *living* Creatures. (3.) An *Appendix* to the *Physico-Mechanical* Treatise concerning the *Air*. (4.) *Something* concerning *Heat* and *Flame*. (5.) The *Sceptical Naturalist*, shewing the *imperfections* of *Natural Philosophy* as we *yet* have it. (6.) A Discourse of *improbable Truths*. (7.) The *production* of *Qualities* by *Art*. (8.) *Several useful Series* of *Inquiries* and *Directions* of *his*, whereof divers are extant in the *Philosophical* Transactions; as, (1.) *General* Heads for a *Natural* History of a *Country small* or *great*. (2.) *Observations* and *Directions* about the *Barometer*. (3.) *Inquiries* touching the *Sea*; and, (4.) About *Mines*. (5.) *Quæries* and *Tryals* proposed, for the improving of that *Grand Experiment*, for the *transfusing Blood* out of one *live Animal* into another. (6.) *Others* for the finding the Effects of the *Rarifying Engine* exhausted, in *Plants*, *Seeds*, and Eggs of *Silk-Worms*. Besides *These*, he hath a great many other *unpublish'd* Inquiries, and *Series* of *Experiments* and *Observations* of the most considerable parts of *Natural* Philosophy. As, (1.) About *precious Stones*. (2.) *Fermentation*. (3.) *Heat* and *Flame*. (4.) An Account of a *new* kind of *Baroscope*, which he calls *Statical*, and the advantage it hath above the *Mercurial*. (5.) A *New Experiment*, shewing how a considerable degree of *Cold* may be suddenly produced without the help of *Snow*, *Ice*, *Hail*, *Wind*, or *Nitre*, and that at any time of the year, *viz.* by *Sal Armoniack*. (6.) A way of preserving *Birds* taken out of the *Eggs*, and other small *Fœtus's*.

This is the Account I received of that *Noble* Person's *further* Designs for the advantage of Useful Knowledge; and though he hath not made an *absolute* Promise of those Discourses to the Publique, yet he is known to have *such*, and they are with *probability* expected, since he is *too generous* to detain from the *capable* and *inquisitive* those his *excellent Discoveries*, which tend to the *common Benefit*. And thus I have

said what may suffice for general Information about the *ROYAL SOCIETY*, and the hopes we may justly conceive of *this Constitution*. And in what I have discoursed, I have not deviated from my *undertaking*, which was to shew the *advantage* that *this latter* Age hath, for the promotion and increase of *Knowledge*, above those of former Times: For by describing the *Reasons*, *Nature*, and some of the *Effects* of *this Establishment*, I have not *obscurely* suggested the Helps that the World hath and may expect from *Them*, for those great and noble *Purposes*; and 'tis easie to see in the very *frame* of this *Assembly*, that they are fitted with Opportunities to collect most of the considerable *Notices*, *Observations*, and *Experiments*, that are scattered up and down in the *wide* World; and so, to make a *Bank* of all the *Useful Knowledge* that is among Men: For either by their *whole Body*, or *some* or *other* of their *particular* Members, they hold a *Learned Correspondence* with the greatest *Virtuosi* of all the known *Universe*, and have several of their own *Fellows* abroad in *Forreign* Parts, by reason of whose *Communications*, they know most of the *valuable Rarities* and *Phænomena* observed by the curious in Nature, and *all considerable* Attempts and Performances of *Art*, *Ingenuity*, and *Experiment*: To which consideration, if we add the *inquisitiveness* of their *Genius*, and the *way* of their proceeding, by *particular* and *cautious Observation*; the *coldness* and *shiness* of their *Assent*, and the *numbers* of *judicious* Men that *carefully* examine their *Reports*; I say, If these Particulars be weighed, it will appear to the unprejudiced, That the World had never *such* an *advantage* for the *accumulating* a *Treasure* of *substantial Knowledge*, as it hath by *this Constitution*: For *single* Inquisitors can receive but *scant* and *narrow* Informations, either from their *own Experience*, or *Converses*; and *those* they *have*, are frequently very *imperfect*, or very *mistaken*: There is often either *vanity* or *credulity*, *ignorance* or *design* in their *Relations*, which therefore are many times *false* in the *main* Matter, and oftner in the *Circumstance*: So that the *Histories* of *Nature* we have *hitherto* had, have been but an *heap* and *amassment* of *Truth* and *Falshood*, *Vulgar Tales*, and *Romantick* Accounts; and 'tis not in the power of *particular unassociated* Endeavours to afford us *better*: But now, the

frame

frame of this *Society* suggests excellent ground to hope from them *sincere* and *universal Relations*, and the best *grounded* and most useful Collection of the Affairs of *Art* and *Nature*, that ever yet was extant: And as they have *peculiar* Priviledges for the gathering the *Materials* of *Knowledge*, so They have the *same* for the *impartment* and *diffusion* of them.

I should now put an end to this Discourse, but that there is another common prejudice against the *ROYAL SOCIETY*, and all those of that Genius, to which I must speak a little; The Charge is, That they despise the Ancients, and all old Learning, which have been venerable among the best and wisest of all Times. To this I say, That the Modern, free Philosophers, are most ready to do right to the Learned Ancients, by acknowledging their Wit, and all the useful Theories, and Helps we have from them; They read, and consider their Writings, and chearfully entertain any Notices, or Observations they have imparted to us: They have a respect for their great names, and are ready to do honour to them: But yet they do not think that those, however venerable Sages, should have an absolute Empire over the Reasons of Mankind; nor do they believe, That all the Riches of *Nature* were discovered to some *few particular Men* of former Times; and that there is nothing left for the *benefit* and *gratification* of after-Inquirers: No; *They* know, There is an *inexhaustible variety* of *Treasure* which *Providence* hath lodged in Things, that to the Worlds end will afford *fresh Discoveries*, and suffice to reward the *ingenious Industry* and *Researches* of those that *look* into the *Works* of *God*, and *go down to see his Wonders in the Deep*. This, no doubt, the *modesty* and *justice* of the *Ancients* themselves would have confess'd: But besides this, the *Modern Experimenters* think, That the *Philosophers* of elder Times, though their *Wits* were excellent, yet the way they took was not like to bring much *advantage* to *Knowledge*, or any of the *Uses* of *humane Life*; being for the most part *that* of *Notion* and *Dispute*, which still runs round in a *Labyrinth* of *Talk*, but *advanceth nothing*: And the *unfruitfulness* of those *disputing Methods*, which directly and by themselves never brought the World so much *practical*, *beneficial*

Knowledge, as would help towards the *Cure* of a *Cut Finger*, or the *Cooling* of an *Hot Head*, is a palpable Argument, That they were *fundamental Mistakes*, and that the *Way* was not *right*.

For, as my Lord *Bacon* observes well, *Philosophy*, as well as *Faith*, must be *shewn* by its *Works*: And if the *Moderns* cannot shew more of the *Works* of *their Philosophy* in *six years*, than the *Peripateticks* can produce of *theirs*, in the compass of as many Ages, let them be loaded with all that *Contempt* which is usually the *reward* of *vain*, and *unprofitable Projectors*. I say then the *Modern Philosophers* arrogate nothing to their own *Wit*, above that of the *Ancients*: but by the *reason* of the *thing*, and *material*, *sensible Events*, they find they have an advantage by their *way*. And a *lame Child* that *slowly* treads the *right Path*, will at last arrive to his Journeys end; while the *swift Footman* that *runs* about in a *Wood*, will *lose* himself in his *wandrings*.

But notwithstanding all this, there are some of Opinion that *Aristotle* had more advantages for Knowledge than the Moderns, because he had the Survey of all *Asia*, by those who at the charge of his great *Scholar* were imploy'd to make *Experiments*. This I have heard alledg'd; but I think this reason is very defective, both in what it affirms, and in what it would infer.

For first, 'Tis evident that *Aristotle* and the *Ancients* did not know all *ASIA*; for that part which lay beyond the River, was in a manner a *Terra Incognita* unto them: so that they knew scarce any thing of the *Indies* that lie on the other side of *Ganges*, little or nothing of the vast Kingdom of *China*, nothing of *Japan*, or the numerous *Oriental Islands*, besides the defects in the ancient *Geography*, noted above; and these made a *great*, if not the *best* part of *Asia*; of which though *Aristotle* might have *heard*, yet we have no shadow of Reason to believe that he had any Informations from thence. And then I consider,

(2.) That the Account he had from the best *survey'd* Regions, were but from *Hunters*, *Fowlers*, *Fishermen*, and such kind of *Inquisitors*, who were like enough to make *vain* and *mistaken Reports*, and he was fain to depend upon the *credit* of

their

their *Relations*; and therefore 'tis obferv'd by Learned Men that his *History* of *Animals* contains many things that are *frivolous*, and many that are *palpably falſe.* To which I add,

(3.) The remarque of my Lord *Bacon*, That though *Ariſtotle* made ſome *uſe* of thoſe *Experiments*; and *Obſervations* he had from thoſe *Informers*, yet it was after he had *concluded* and *decreed.* For he did not *uſe* and imploy *Experiments* for the *erecting* of his *Theories:* but having *arbitrarily* pitch'd his *Theories*, his manner was to force *Experience* to *ſuffragate*, and yield countenance to his *precarious Propoſitions.* And on this account, the *Great* Man ſaith, he was leſs *excuſable* than the *Schoolmen*, who altogether quitted and neglected the way of particular *Induſtry* and *Experiment*. Thus then *Ariſtotle* neither knew all *Aſia*, nor had certain *Relations* of that part thereof, of which he had the beſt Informations; nor did he uſe thoſe he had as he ought; which were enough to overthrow the conceit of his Superlative Advantages. But I conſider further, That though theſe things had been otherwiſe, and as much for the *intereſt* of the fond *Phanſy* as could be wiſh'd, yet,

(2.) The *Inference* muſt *fail*, ſince the *latter* Ages have a much *larger* World than *Ariſtotle*'s *Aſia*; We have *America*, and the many *New* Lands that are *diſcovered* by *Modern Navigators*; we have *larger* and more *perfect Geography* even of the *old* World, infinitely more *acquaintance* and *better* correſpondence in all the parts of the *Univerſe*, by our *general Traffique*, than the *Ancients*; whoſe *Commerce* was narrow, and knowledge of *remote* Parts conſiſted but in *hearſays*, and *doubtful Rumors*. We *have* beſides, *New Heavens* as well as a *New Earth*, a larger and truer proſpect of the World above us. We have *travell'd* thoſe *upper* Regions by the *help* of our *Tubes*, and made *Diſcoveries* more becoming the *Wiſdom* and *Magnificence* of *our Creatour*, and more agreeable to the *appearances* of things, than the *arbitrary* Phanſies and Conjectures of *Ariſtotle* and his *Schools.* We have a *greater World* of *Arts*, *Inſtruments*, and *Obſervations*, as in all *Particulars* my Diſcourſe hath made good. And what are *Ariſtotle's peragrations of Aſia*, to all *theſe?* To the *great Weſtern Indies*;

to

to the fuller and clearer knowledge of the *Ancient Lands*; to those *nobler* Accounts we have of the *Heavens*, and *universal Nature*; to our vast *Improvements* of *Chymistry*, *Anatomy*, *Arithmetick*, *Geometry*, *Astronomy*, *Geography*, *Opticks*, *Natural History*, *Navigation*, and all things else of benefit and instruction? I say, *What* are the *gleanings* of a *few mercenary Hunters*, *Fowlers*, and *Fishermen*, over *one* part of *Asia*, to *these* Advantages? And what are the *Reports* of a *few ordinary Fellows*, and the *Tryals* of a *single Person*, to the learned Inquiries and Endeavours of *many sagacious inquisitive Ages*, and the performances of a *numerous Company* of *deep*, *wary*, *diligent*, and *Eagle-ey'd Philosophers*, who have the help of *those* Observations, and the addition of an *infinite number more?*

But my Design is, by representing the *advantages* and *hopefulness* of the *Modern Way*, to kindle an ardour towards the *generous Experimental Researches*, to vindicate *Philosophy* from the *imputation* of being *notional* and *unprofitable*, and to keep Men from adhering to that which is *so*, and hath been the occasion of the *scandal*. And as for *those* that yet stick *there*, I have some things to observe concerning the *Reasons* of their *Devotion* to that *airy disputative Philosophy*, and their *Enmity* to the *Practical*.

I consider then, That *easie Youth* in its *first Addresses* to Learning, is wholly *passive* to the *Discipline* and *Instructions* of its *Teachers*, whose *Documents* are *promiscuously* received with ready submission of Understandings, that *implicitly* depend on *their Authority*. We suck in the first Rudiments as we *do* the *common Air* [*facili haustu*] as my Lord *Bacon* expresseth it, *without discrimination* or *election*, of which indeed our tender and unexercised Minds are not capable. And, I confess, 'tis *necessary* we should do so; nor were there any hurt in this *innocent* easiness, did not most Men *all their lives* worship the *first* thing they saw in the *morning* of their *days*, and *ever after* obstinately adhere to those unexamined Receptions: But *this* is the *mischief*, we infinitely *believe every thing* when we are *Children*; and *most* examine little when they are *Men*, but *settle* in their *first Impressions*, without giving them-

selves

ſelves the *trouble* to *conſider* and *review* them. And *theſe prejudices*, by *cuſtom* and *long acquaintance* with our Souls, get a *mighty* intereſt, and ſhut them up againſt every thing that is different from thoſe *Images of Education*. This is a *general fault* and *infirmity* of *humane Nature*, and from hence it comes to paſs, that the tutour'd *Youth* ſlides *eaſily* into the belief of the *firſt Principles* of *Philoſophy*, which they are taught, and are confirm'd in them by their *Exerciſes* and *Diſputes*, and *Books* and *Converſes*: By *theſe* their *Underſtandings*, which *before* were *White-Paper*, are *dyed* and *deeply tinctured* by the colour they have *imbibed*; And *theſe infuſions* inſenſibly paſs as 'twere into the very *ſubſtance* of the Mind, and are appeal'd to, on all occaſions, as unſophiſticated Truths. So that having ſpent ſome time in *learning* and *trimming* thoſe Notions, *the moſt* divert to *Buſineſs*, or *other* Studies, without troubling themſelves with any more *Philoſophical* Purſuits; but being ſatisfied with thoſe *Notices* which their *firſt* Education lodg'd in their Minds, they ſeek no *further*, nor do care to be *wiſer* in thoſe Matters, than they were in the *diſputing Infancy* of their Knowledge.

All this while no other *hurt* is *done*, but that Men thus are injurious to *themſelves*, and hinder their *own* Improvements: but 'tis *much worſe* when they fondly *fix theſe* as the *Pillars* of *Science*, and would have no body *elſe* go further than their *lazineſs* or their *cares* will permit them to travel; but *rail* ſpitefully at *all* Endeavours for the advancement of *Philoſophick Wiſdom*, and will be angry with every one that hath outgrown his *Cherry-ſtones* and *Rattles*; ſpeak evil at a *venture* of things they know not, and like *Maſtives*, are *fiercer* for being kept *dark*. Theſe are the great Enemies of the *uſeful*, *experimental Methods* of *Philoſophy*: They take it ill that *any* thing ſhould be accounted valuable, in which they are uninſtructed, being loth to *learn* in an Age wherein they expect to *Dictate*; and the *Satyriſt* hath told them another reaſon.

> —— *Turpe putant parere minoribus, & quæ*
> *Imberbes didicère, ſenes perdenda fateri.*

This is much the caſe of many of the *Peripatetick Diſputers*,

ters, They imployed their *Younger* Studies upon the *Philosophy* of *Disputation*, and, it may be, gain'd an ability to out-talk *many* of their *Contemporaries* in *that* way. They *confirm'd* themselves in these *Notions* by instructing *others* in them, and upon *these* Foundations have built the Reputation of being *great Scholars*, and *mighty Disputants* among their *Admirers*. So that we are not to wonder, if they are *vehemently* displeas'd with the *ROYAL SOCIETY*, and *Experimental Philosophers*, since their Designs take away the *honour* of their *Craft*, and in *this way*, They are upon the same *level* with those that are *but beginning*; the thought of which must needs be distasteful to *self-absur'd* and *imperious* Minds. And yet, that it may not be thought I speak any of this out of envy to their Fame, I shall do them all the right I can, by acknowledging,

That I take them for Persons that understand the *Quiddities* and *Hæcceities*, the *Præcisiones formales* and the *Objectivæ*, the *Homogeneities* and *Heterogeneities*, the *Catagorematice's* and the *Syncatagorematice's*, the *Simpliciter's*, and the *secundum Quid's*.

They know, no doubt, that *First Matter* that is neither *Quid*, nor *Quale*, nor *Quantum*; and that *wonderful Gremium materiæ*, out of which *Forms* were *educ'd*, that were *never there*. They can tell you fine things of the *fiery* Element under the *Moon*, and the *Epicycles* of the *Stars*; Can resolve *all Questions* by the *compendious* way of *Formalitèr*, *Materialitèr*, *Fundamentalitèr*, and *Eminentèr*; Tell the *difference* between *Quodam modo*, and *Modo quodam*; and shew the causes of all things in *Sympathy*, *Antipathy*, *Combination* of the *Elements*, and *Influences* of the *Heavens*. They *see* clearly by their *Spectacles*, That the *Milkie-way* is but a *Meteor*, and *Comets* only *kindled Vapours*, in spite of the *contrary* information of the *deceitful Telescopes*. They can, no doubt, dispute roundly about the *composition* of *Entia rationis*, and *Universals*, the *Prædications* of *Genus* and *Species*, and the *manner* of their *conservation* in *Individuals*; of the number of the *Prædicaments*, and *what* Being is in *this*, and *what* in another; of the *inherence* and *propagation* of *Accidents*, the *real* essence of *Relations*, the *nature* of *Ubi* and *Quando*, and a thousand

thousand other *Logical* tricks about *shuffling* and *ordering Propositions* and *Forms* of *Syllogism*.

They can discourse of the *nakedness* of *First Matter*, the *Eduction* of *Forms* out of its *Bosom*; shew, that the *want* of a *Being* is a *Principle* of it, how *forms* of *Elements* are *refracted* in *mix'd Bodies*; Dispute subtilly about the *Primum incipiens* in *Motion*, the *instantaneousness* of *Generation*, the *Maximum quod sic*, and the *Minimum quod non*, and infinite more of such *wonderful*, useful, significant Speculations.

And in the *Metaphysicks*, I acknowledge them in the words of the incomparable Droll;

> *They know what's what, and that's as high*
> *As Metaphysick Wit can fly.*

These, and other such *Profundities*, are some of the *main* things of that *Philosophy*, for which *Peripatetick Disputers* are so zealous. But for the *Mechanick*, that attempts *material* and *intelligible* Accounts of things, and is in its *grounds* much *ancienter* than that of *Aristotle* which they admire; for the *Experimental* Methods, and *late* Improvements of *useful* Knowledge; Many of these Men have a suspicion, if not a contempt of them: Nor do they pretend any acquaintance with those Studies: For concluding that nothing more is to be known, than They learnt in the Circle of Disputations, they sit down in the Opinion of the perfection of their Knowledge, without caring to be inform'd what the Inquisitive World is doing in this Age of Enquiry.

And on this occasion, I observe the *incompetency* of *their Judgments*, who are *Enemies* to the *Real Experimental Philosophy*, in that they do not (as I intimated) *at all*, or *very little*, *understand* what they *condemn*, This I have some reason to say, since in the whole *compass* of my Acquaintance, which is not very *narrow*, I profess I know not *one* who opposeth the *Modern* way, that is not *almost totally unacquainted* with it. And on the other side, upon the most careful turn of my thoughts among my *Philosophical* Friends, I cannot light on *one* of all those, that are *for* the *Free* and *Experimental* Pro-

cedure, but who have been very well instructed in the *Peripatetick Doctrines*, which they have deserted, and *most of them* much *better* than those who are yet *zealous Contenders* for them.

And for my *own* part, I must confess, That while I was a Youth in the University, I was much delighted with those *subtilties* that exercise the Brain in the *Nicities* of *Notion* and *Distinctions*, and afford a great deal of *idle Imployment* for the Tongue in the *Combates* of *Disputation*: In which I acknowledge I was none of the most *backward*, but being highly pleased with those Engagements, I found as much diversion in them, as in my dearest Recreations. But after I had spent some years in those *Notional* Studies, perhaps with as good success as some others, I began to think *CUI BONO*: and to *consider* what *these* things would *signifie* in the World of *Action* and *Business*, I say, I *thought*; but I could find no encouragement to *proceed* from the Answer my thoughts made me: I ask'd my self, what Accounts I could give of the *Works* of *God* by my Philosophy, *more* than those that have *none*, and found, that I could *amaze* and *astonish Ignorance* with *Distinctions* and *Words* of *Art*, but not *satisfie ingenious Inquiry* by any *considerable* and *material Resolutions*. I *consider'd* I had got nothing all this while, but a certain *readiness* in talking, and that about things which I could not use *abroad*, without being *Pedantick* and *ridiculous*. I perceived that *that Philosophy* aimed at *no more*, than the *instructing* Men in *Notion* and *Dispute*; That its *Design* was *mean*, and its *Principles* at the *best uncertain* and *precarious*; That *they* did not *agree* among *themselves*, nor *at all* with *Nature*. I *examined* the best Records I could meet with about the *Author* of those *current Hypotheses*, but could not be *assured* that *Aristotle* was *he*. I saw many Reasons to believe, that most of the *Books* that bear *his Name*, are *none* of *his*; and *those that are* most *strongly* presumed to be *so*, are mightily *altered* and *corrupted* by *Time*, *Ignorance*, *Carelesness* and *Design*. I perceived that the *Commentators* and late *Disputers* had exceedingly *disguised* and *changed* the *Sense* of those very Writings, and made up a *Philosophy* that was *quite another thing* from *that* which *those* Books contain. So that by *these* means I was by degrees taken off from the

the *implicit Veneration* I had for *that Learning*, upon the account of the great Name of *Aristotle* which it bore. And thus the great *impediment* was removed, and the prejudice of *Education* overcome; when I thought further, That *useful* Knowledge was to be look'd for in *God's great Book* the *Universe*, and among those *generous* Men that had convers'd with *real* Nature, *undisguised* with *Art* and *Notion*. And still I saw *more* of the *justice* of the excellent *Poet*'s Censure of those Notional Philosophers, when he saith,

They stand
Lock'd up together hand in hand:
Every one leads as he is led,
The same bare Path they tread,
And dance like Fairies a phantastick Round;
But neither change their Motion, nor their Ground.

From *this Philosophy* therefore, and *these Men*, I diverted my *Eyes* and *Hopes*, and *fixt* them upon *those Methods* that I have recommended, which I am sure are liable to none of those *Imputations*.

And here I think fit to add a Caution which I have given in another Discourse, and do it once more to prevent a dangerous misunderstanding, *viz.* [And it is, That I have said nothing of this, to discourage *young Academians* from applying themselves to those *first* Studies, which are in *use* in the *Universities*. Their *Statutes* require *Exercises* in *that way* of *Learning*; and *so much* knowledge of *it*, as inables for *those Duties*, is very *fit*. Nor do I *deny*, but that *those Speculations* raise, *quicken*, and *whet* the *Understanding*, and on that account may not be altogether *unprofitable*, with respect to the more *useful Inquisitions*; provided it keep it self from being *nice*, *airy*, and *addicted* too much to *general* Notions. But *this* is the *danger*, and the *greatest part* run upon the Rock. The *hazard* of which might in great measure be avoided, if the *Mathematicks* and *Natural History* were mingled with these *other Studies*, which would indeed be excellent *Preparatives* and *Dispositions* to *future* Improvements. And I add further, That the *young Philosophers* must take care of looking on their *Systema-*

tick Notions as the *bounds* and *perfections* of *Knowledge*; nor make account to *fix eternally* upon *those Theories*, as *establish'd* and *infallible Certainties:* But *consider them* in the *modest sense* of *Hypotheses*, and as *things* they are to take in their passage to *others* that are more *valuable* and *important*. I say, The *Peripatetick Studies* thus *temper'd*, will not, I suppose, be *disallowed* by those who are for the *Practical Methods*; and so the *University-Establishments* can receive no prejudice from the *Spirit* that dislikes a *perpetual acquiescence* in the *Philosophy* of the *present* Schools.

THE

The *USEFULNESS* OF Real Philoſophy TO RELIGION.

Eſſay IV.

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THE USEFULNESS OF Real Philosophy TO RELIGION.

IT is the perverse Opinion of hasty, inconsiderate Men, that the *study* of *Nature* is prejudicial to the Interests of *Religion*; And some, who are more zealous than they are wise, endeavour to render the *Naturalist* suspected of holding secret correspondence with the *Atheist*: which things if really they were so, 'twere fit that the *Writings* of *Philosophers* should be sent after the Books of *curious* Arts, that were voted to Destruction by *Apostolick* Authority and Zeal; and *then* were they all laid together in a fired heap, and one Drop from my Finger would quench the Flames, I would not let fall that Drop. But 'tis to be hoped there is no such *guilt* or *danger* in the case; we may suppose rather, that those unkind surmisals concerning *natural Wisdom*, are the effects of *superstitious*

stitious Ignorance; yea, I doubt they are some of the Reliques of *that Barbarism*, that made Magick of *Mathematicks*, and Heresie of *Greek* and *Hebrew*.

And now, were this *gross* conceit about the *Knowledge* of *Nature* only the fear and fancy of the meer vulgar, it were to be pardon'd easily, and lightly to be consider'd; but the *worst* is, the infection of the weak jealousie hath spread it self among some of those *whose Lips should preserve Knowledge*; and there are, I doubt, divers of the *Instructers* of the People, who should endeavour to deliver them from the vain *Images* of Fancy, that foment those fears in their *own* Imaginations, and *theirs*. For the sake of *such*, and those others, who are capable of Conviction, I shall endeavour to justifie *sober Inquisitions* into *God's Works*; and to shew, that they are not only *innocent*, but very *useful* in most of the Affairs wherein *Religion* is concerned. This I shall do, for more clearness of proof, by a gradual motion of Discourse, from things that are plain, and acknowledg'd (which I shall touch briefly) to the main Matter I would enforce: In this order;

(I.) That *God is to be praised for his Works.*
(II.) That *his Works are to be studied by those that would praise him for them.*
(III.) That *the study of Nature, and God's Works, is very serviceable to Religion.*
(IV.) That *the Ministers and Professors of Religion ought not to discourage, but promote the knowledge of Nature, and the Works of its Author.*

THe FIRST contains two things, *viz. That God is to be praised*; and particularly *for his Works*. The *former* is the constant Voice of *Scripture*, and *Universal* Nature; *He is worthy to be praised*, saith the Kingly Prophet, 2 *Sam*.22.4. *Greatly to be praised*, saith the same Royal Saint, 1 *Chron*. 16. 25. We are to offer him the *Sacrifice of Praise*, Heb. 13. 15. And are encouraged to do so, because, *It is good to sing Praises*; and *praise is comely for the upright*, Psal.1. 47. and *Psalm*. 33.

To

To recite all the particular recommendations and commands of this duty, were endless, I only mention the next to my thoughts, and add,

That *Nature* saith the same; That *Praise* is the Tribute that is due to the Author of our Beings; And we can offer him nothing *less*, and in a manner nothing *else*. All the World have been unanimous in *this*, and the rudest part of Mankind, have owned the dueness of *Praise* and devout Acknowledgment.

And (II.) the *other* Branch is as clear, That *God is to be praised particularly for his Works*; For in *these* we have very full discoveries of his *Perfections*, and his *Mercies*, the most proper Subjects for our *Praises*. But here I must be more large, and therefore propose the following things to be consider'd.

(1.) When God himself would represent his own *Magnificence* and *Glory*, he directs us to his *Works*. He illustrates his *Greatness* to *Job*, by instancing the Wonders of his *Creatures*: Among whom we are sent to the *Earth*, and *Ocean*; to the *Clouds*, and *Rain*; to the *Light*, and *heavenly* influence; to *Behemoth*, and *Leviathan*; to the *Ostrich*, and the *Eagle*; and the other Furniture of *Land*, and *Air*, and *Seas*, in the four last Chapters of that Book; in all these are the *marks* of his *Glory*, and his *Greatness*, and they are no less *so* of his *Wisdom*, and his *Goodness*; For *in Wisdom he hath made them all*, Psalm. 104. and the *Earth is full of his goodness*, Psalm. 119. 54.

And again (2.) when *devout* and *holy* Men would quicken their own Souls, and *those* of *others*, to *praise* him, they use the *same* method, and send abroad their Thoughts among the *Creatures* to gather instances of acknowledgment. Thus *Elihu* in *Job* magnifieth his *Power* by the *Lightning* and *Thunder*, by the *Snow* and *Rain*, by the *Whirlwinds* of the *North*, and *Cold* of the *South*, and calls upon his afflicted Friend to *remember to magnifie his Works that Men behold*; and again bids him stand still, and consider the *wondrous Works of God*, Job 36, and 37 Chapters. And the *Psalmist* upon the same account urgeth his Soul to bless his Maker for his Majesty, and Honour disclosed in the *natural* Wonders of the *Heavens* and

Earth, the *Winds* and *Waters*, the *Springs* and *Grass*, the *Trees* and *Hills*, Psalm. 104. throughout, and he gives particular *thanks* again, *Psalm*. 136. for the discoveries of the Divine *Wisdom* and *Mercy* in the *same* instances of his Providence and Power; which he further celebrates by calling upon the noblest of inanimates to praise him, *Psal*. 148. *Praise him Sun and Moon, praise him O ye Stars and Light*; which Creatures of his, though they are not able to *sing Hallelujahs*, and *vocally* to rehearse his praise, yet they afford *glorious Matter* for grateful and triumphant Songs, and by their *beauty*, and their *order*, excite *those* that *study* and *observe* them, to adore and glorifie their Maker. And therefore the Prophet runs on further into an aggregation of more Particulars, of *Fire*, and *Hail*, *Storms*, and *Vapours*, *Mountains*, and *Cedars*, *Beasts*, and *Fouls*, and *creeping Things*; all which in the same *Divine Canticle* are summon'd to *praise him*; that is, we are required to *use them* as the *Matter* and *Occasions* of Holy *Eucharist* and *Thanksgiving*. To these I add,

(2.) That God was pleased to *sanctifie* a *solemn Day* for the celebration of his *Works*. He appointed a *Sabbath* for *rest*, and *contemplation to himself*, and for *praise* and *acknowledgment* to *us*; and his *making Heaven, and* Earth, *the Sea, and all that in them is*, is intimated as the reason of the consecration of *that Day*; which was observed upon *that* account among the *Jews*; and the devout *Christians* of eldest times kept the *same* in memory of *God's Creation*, after the institution of the *other* Sabbath. This I take to be enough for the first Proposition, *viz*. That *God is to be praised for his Works*. I descend to the second, which is,

(II.) *That his Works are to be studied by those, that would praise him for them*. We are commanded to *sing Praises with understanding*, Psal. 40. 7. and the Offering he requires, is *that* of a *reasonable service*. His *Works* receive but little glory from the *rude wonder* of the ignorant; and there is no *wise* Man that values the applauses of a *blind admiration*. No one can give God the Glory of his *Providence*, that lets the Particulars of it pass by him *unobserv'd*; nor can *he* render *due* acknowledgments to his *Word*, that doth not *search the Scriptures*:

tures: 'Tis equally impoſſible to praiſe the Almighty, as we ought, for his Works, *while we careleſly conſider them*. We are commanded to *ſearch* for *Wiſdom*, as for *hidden Treaſure*; It lies not expoſed in the common ways; and the chief wonders of Divine Art and Goodneſs are not on the *ſurface* of things layed open to every *careleſs* eye. The Tribute of praiſe that we owe our Maker, is not a *formal ſlight* confeſſion that his Works are *wonderful* and *glorious*; but ſuch an acknowledgment as proceeds from *deep* Obſervation, and acquaintance with them. And though our profoundeſt Study and Inquiries cannot unfold all the Myſteries of Nature, yet do they ſtill diſcover *new* Motives to *devout* admiration, and *new* Objects for our loudeſt Praiſes. Thus briefly of the ſecond Propoſition alſo, *viz. That God's Works are to be ſtudied by thoſe that would praiſe him for them.* From *theſe* I now advance to the *Third*, which will require more thoughts, and it is this,

(III.) *That the ſtudy of Nature and God's Works, is very ſerviceable to Religion.* We commonly believe that the *glory* of God is the *end* of *this*; we ſay 'tis *his*, and we know 'tis *ours*, and the *Divine Glory* is writ upon the *Creatures*; the more we *ſtudy* them, the better we underſtand *thoſe* Characters, the better we *read* his *Glory*, and the more fit are we to celebrate, and proclaim it. Thus the *knowledge* of *God's Works* promotes the *end* of *Religion*.

And it diſpoſeth us to *it*, by keeping the Soul under a continual *ſenſe* of God. He that converſeth with his Works, finds in all things the clear ſtamps of infinite *Benignity* and *Wiſdom*; he perceives the *Divine Art* in all the *turnings* and *varieties* of *Nature*, and Divine *Goodneſs* in *that*. He obſerves *God* in the *colour* of every *Flower*, in every *fibre* of a *Plant*, in every *particle* of an *Inſect*, in every *drop* of *Dew*. He meets *him* in *all* things, and ſees all things are *his*, and hath an advantage hereby to be inſtructed how to uſe *them* as our *Makers*, not *ours*, with *reverence* and *thanksgiving*, with an eye to his Glory, and an aim at his Enjoyment. This is the tendency of the *knowledge* of *Nature*; if it be abuſed to different and contrary Purpoſes, *natural Wiſdom* is not in fault, but *he* that turns this excellent Inſtrument of Religion upon it ſelf. But

that *better* uſe may be made of it, and by ſome *is*, will appear by conſidering particularly how *acquaintance* with *Nature* aſſiſts *RELIGION* againſt its greateſt Enemies, which are **Atheiſm**, **Sadduciſm**, **Superſtition**, **Enthuſiaſm**, and **the Humour of Diſputing**.

For the *Firſt*, **Atheiſm**, I reckon thus, The *deeper* inſight any Man hath into the Affairs of *Nature*, the more he diſcovers of the *accurateneſs*, and *Art* that is in the *contexture* of things. For the *Works* of *God* are not like the *compoſitions* of *Fancy*, or the *Tricks* of *Juglers*, that will not bear a clear *light*, or ſtrict ſcrutiny; but their exactneſs receives advantage from the ſevereſt inſpection; and he *admires* moſt, that *knows* moſt; ſince the *inſides* and *remoteſt* receſſes of things have the cleareſt ſtamps of inimitable Wiſdom on them, and the *Artifice* is more in the *Wheel-work*, than in the *Caſe*. For if we look upon any of the Works of Nature through a *Magnifying Glaſs* that makes *deep* Diſcoveries, we find ſtill *more* beauty, and *more* uniformity of contrivance; whereas if we ſurvey the moſt *curious* piece of *humane* ingenuity by *that Glaſs*, it will diſcover to us numerous *Flaws*, *Deformities* and *Imperfections* in our moſt Elegant *Mechanicks*: Hence I gather, That the *ſtudy* of *God's Works*, ſhewing us more of the *riches* of Nature, opens thereby a fairer Proſpect of thoſe *Treaſures* of Wiſdom that are lodged within it; and ſo furniſheth us with deeper Senſes, and more Arguments, and clearer Convictions of the *exiſtence* of an infinitely *intelligent Being*, that contrived it in ſo *harmonious* and *aſtoniſhing* an order.

So that if any are ſo *brutiſh*, as not to acknowledge him upon the view of the meer *external* frame of the Univerſe, they muſt yet *fall down* before the evidence, when *Philoſophy* hath opened the *Cabinet*, and led them into the *Jewel-houſe*, and ſhewn them the ſurprizing variety that is *there*. Thus though the *obvious* Firmament, and the motions of the *Sun* and *Stars*, the ordinary viciſſitudes of Seaſons, and productions of things, the *viſible* beauty of the great World, and the *appearing* variety and fitneſs of thoſe Parts that make up the little

tle one in Man, could ſcarce ſecure *Galen* from the danger of being an *Atheiſt:* Yet when he pryed *further* by *Anatomical* Enquiries, and ſaw the wonderful *diverſity*, *aptneſs*, and *order* of the minuteſt *Strings*, *Pipes*, and *Paſſages* that are in the *inward* Fabrick; He could not abſtain from the *devoutneſs* of an *Anthem* of Acknowledgment. And that the real *knowledge* of *Nature* leads us by the hand to the confeſſion of its *Author*, is taught us by the Holy Pen-man, who ſuggeſts that the *viſible things of the Creation declare him*. The *Plebeian* and *obvious* World no doubt *doth*, but the *Philoſophical* much *more*. So that whoſoever ſaith, that *inquiry* into *Nature*, and God's *Works* leads to any degree of *Atheiſm*, gives great ground of ſuſpicion that *himſelf* is an *Atheiſt*; or that he is *that other thing* that the *Royal* Pſalmiſt calls him, *that ſaith in his heart there is no God*. For either he acknowledgeth the *Art* and *exactneſs* of the Works of Nature, or he doth not; if *not*, he *diſparageth* the Divine *Architect*, and *diſables* the *chief* Argument of his *exiſtence:* If he *doth*, and yet affirms that the *knowledge* of *it* leads to *Atheiſm*, he ſaith he knows *not what*, and in effect *this*, That the ſight of the *order* and *method* of a *regular* and *beautiful* contrivance tends to perſwade that *Chance* and *Fortune* was the Author.

But I remember I have diſcours'd of this elſewhere, and what I have ſaid for *Philoſophy* in *general* from its tendency to devout Acknowledgments, is not ſo true of any as of the *Experimental* and *Mechanick*. For the Phyſiology of the modern *Peripatetick* Schools creates *Notions*, and turns *Nature* into *words* of *ſecond* Intention, but diſcovers little of its *real* beauty, and *harmonious* contrivance; ſo that *God* hath no *glory* from it, nor *Men* any Argument of his *Wiſdom* or *Exiſtence*. And for the *Metaphyſical* Proofs, they are for the moſt part *deep* and *nice*, ſubject to *Evaſions* and *turns* of *Wit*, and not ſo generally perſwaſive, as *thoſe* drawn from the *plain* and *ſenſible* Topicks, which the Experimental Philoſophy inlargeth and illuſtrates.

This then gives the greateſt and fulleſt aſſurance of the *Being* of *God*, and acquaintance with this kind of *Learning* furniſheth us with the *beſt* Weapons to defend it. For the *modern Atheiſts* are pretenders to the *Mechanick* Principles, *viz.* thoſe

of

of meer Matter and Motion; and their pretensions cannot be shamed or defeated by any *so well*, as by *those* who throughly *understand* that wild Systeme of Opinions. *These* indeed perceive, that there is only *Nature* in some things that are taken to be *supernatural* and *miraculous*, and the *shallow Naturalist* sees no *further*, and therefore *rests* in Nature; But the true Philosopher shews the vanity and unreasonableness of taking up so *short*; and discovers *infinite Wisdom* at the end of the *Chain* of *Causes*. I say, If we know no further than *occult Qualities*, *Elements*, *Heavenly Influences* and *Forms*, we shall never be able to disprove a *Mechanick* Atheist; but the more we understand of the *Laws* of *Matter* and *Motion*, the more shall we discern the *necessity* of a *wise* mind to *order* the blind and insensible Matter, and to *direct* the *original* Motions; without the *conduct* of which, the *Universe* could have been nothing but a mighty *Chaos*, and mishapen Mass of everlasting *Confusions* and *Disorders*. This of the FIRST, *viz.* That *the knowledge of Nature serves Religion against Atheism*; and that it doth also,

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(II.) AGainst **Sadducism**. 'Tis well known that the *Sadduces* denyed the *existence* of *Spirits*, and *Immortality* of *Souls*; And the *Heresie* is sadly reviv'd in our days.

(1.) What a *Spirit* is; and whether there be *Spirits*, or not; are questions that appertain to the *disquisition* of *Philosophy*. The Holy Scripture, that condescends to the plain capacities of Men, useth the word *Spirit* (commonly) for the more *subtile* and *invisible* Bodies, and 'twill be difficult from thence to fetch a demonstrative proof of *Spirits*, in the *strict* Notion. That there are *Angels* and *Souls* which are *purer* than these *gross* Bodies, may no doubt be concluded from *thence*; But whether *these* are only a *finer* sort of Matter, or a *different kind* of Beings, cannot (I think) be determin'd by any thing deliver'd in the Divine Oracles. The *Inquiry* therefore belongs to *Philosophy*, which, from divers *Operations* in our *own Souls* concludes, That there is a sort of Beings which

which are not *Matter* or *Body*, viz. Beings, *ſelf-motive*, *penetrable* and *indiviſible*; Attributes directly contrary to *thoſe* of *Matter*, which is *impenetrable*, *diviſible*, and *void* of *Self-motion*. By *theſe Properties*, reſpectively, the *diſtinct* nature of *Spirit* and *Body* is known; and by the *ſame*, that there are *Spirits*, in the *ſtricteſt* ſence, as well as *corporeal* Beings.

Now by *ſtating* the *Nature*, and proving the Exiſtence of *Spirits*, a very conſiderable ſervice is done to Religion: For hereby our Notion of the adorable *Deity* is freed from all *material* groſneſs, in which way thoſe muſt conceive him, that acknowledge nothing but *Body* in the World; which certainly is a very great diſ-intereſt to his Glory, and ſuggeſts very unbecoming thoughts of him. And by the due ſetling the *Notion* of a *Spirit*, the conceit of the *Soul's Traduction*, is overthrown, which either ariſeth from *direct Sadduciſm*, or a *defect* in Philoſophy. Hereby our *Immortality* is undermined, and dangerouſly expoſed: But *due Philoſophical* Diſquiſition will ſet us right in the Theory.

For the *former* of the Errors mention'd, *viz.* the *Anthropomorphite Doctrines*, that make *God* himſelf a *corporeal* Subſtance; Thoſe cannot be *diſproved*, but by the Uſe and Application of the *Principles* of *Philoſophy*; Since let us bring what Arguments we *can* from the *Scriptures*, which ſpeak of the *Perfection*, *Infinity*, *Immenſity*, *Wiſdom*, and other Attributes of God; *Theſe* no doubt will be granted; but the Query will be, Whether *all* may not belong to a *material* Being; a queſtion which *Philoſophy* reſolves; and there is no other way to ſearch *deep* into this Matter, but by thoſe Aids.

So likewiſe as to the *Traduction* of the *Soul*; The Arguments from Scripture againſt it are very *general*; yea many expreſſions we find *there*, ſeem at firſt ſight to look *that way*. And therefore this other help, *Philoſophy*, muſt be uſed *here* alſo; and by the diſtinct repreſentation which it gives of the Nature of *Spirit*, and *Matter*, and of the *Operations* that appertain to *each*, this Error is effectually confuted; which it cannot be by any other proceeding.

Thus Philoſophy befriends us againſt *Sadduciſm*, in the *firſt Branch* of it, as it explodes the *being* of *Spirits*.

(2.) The

(2.) The other is, the *denyal of the Immortality of our Souls*; The establishment of *this* likewise, the Students of *Philosophy* and *God's Works* have attempted in all Ages, and they have prov'd it by the *Philosophical* considerations of the nature of *Sense*; the quickness of *Imagination*; the spirituality of the *Understanding*; the freedom of the *Will*; from *these* they infer, that the Soul is *immaterial*, and from *thence*, that it is *immortal*; which Arguments are some of the most *demonstrative* and *cogent* that the meer reasons of Men can use; but cannot be manag'd, nor understood, but by *those* that are instructed in *Philosophy* and *Nature*.

I confess there are *other Demonstrations* of our *Immortality*, for the *plain* Understandings that cannot reach those *Heights*. The *Scripture* gives clear evidence, and *that* of the *Resurrection* of the Holy *Jesus*, is *palpable*; But yet the *Philosophical* Proofs are of great *use*, and serve for the conviction of the *Infidel*, to whom the *other* inducements are *nothing*; and the *deeper* knowledge of things is necessary to defend *this* great Article of *Religion* against such Men, since they alledge a sort of *Arguments* to prove the Soul to be *mortal*, that cannot be confuted but by a reason instructed in the *Observations* of Nature.

For the *Modern Sadduce* pretends, that all things we *do*, are performed by *meer Matter* and *Motion*; and consequently, that there is no such thing as an *immaterial* Being: so that when our *Bodies* are *dissolv'd*, the whole Man is destroyed and lost for ever; which *dismal* conclusion is *true* and *certain*, if there be nothing in us but *Matter*, and the *results* of *Motion*; and those that converse but *little* with *Nature*, understand *little* what may be done by *these*; and so cannot be so well assured that the *Elevations*, *Mixtures*, and *Combinations* of them cannot be at last improv'd *so far*, as to make a *sensible*, *reasoning* Being; nor are they well able to disprove one, that affirms that they are *actually* advanc'd to that height: whereas he that hath much inquired into the Works of *God* and *Nature*, gains a clear sight of what *Matter* can perform, and gets more and *stronger* Arguments to convince him, that its *Modifications* and *Changes* cannot amount to perception and *sense*;

since

ſince in all its *Varieties*, and *higheſt Exaltations*, he finds no *Specimens* of *ſuch* Powers.

And though, I confeſs, that all *Mechanick* Inquirers make not *this* uſe of their *Inquiſitions* and *Diſcoveries*; yet *that* is not the *fault* of the *Method*, but of the *Men*; and *thoſe* that have gone furtheſt in *that* way, have receded moſt from the *Sadducean* Doctrines. Among ſuch, I ſuppoſe, I may be allowed to reckon the Noble *Renatus Des-Cartes*; And his *Metaphyſicks* and Notions of *Immaterial* Beings, are removed to the greateſt diſtance from all *Corporeal* Affections; which I mention not to declare, or ſignifie my *adherence* to thoſe *Principles*; but for an Inſtance, to ſhew, that acquaintance with *Matter*, and the *knowledge* of its *Operations*, removes the Mind far off from the belief of thoſe *high* Effects which ſome aſcribe to *Corporeal* Motions; and from all ſuppoſitions of the Soul's being *bodily* and *material*.

Thus *Philoſophy* is an excellent Antidote againſt *Sadduciſm*, in both the Main Branches of it. But then I muſt confeſs alſo, that the Philoſophy of the late *Peripatetick* Writers doth rather aſſiſt, than *overthrow* this dangerous *Infidelity*; I mean, in what it teacheth concerning *Subſtantial Forms*, which I fear tends to the diſabling all *Philoſophical* Evidence of the *Immortality* of Humane *Souls*. For theſe Peripateticks make their *Forms*, a kind of *medium* between *Body* and *Spirit*, *viz.* Beings that are *educed* (as they ſpeak) out of Matter; and are ſo dependent on it, that they periſh utterly, or return into the *boſom* of the *Matter*, (as ſome cant) when they ceaſe to inform it: But yet they allow not that thoſe Forms are material in their eſſential Conſtitution and Nature.

This is the Peripatetick account of *ſubſtantial Forms*, and *ſuch* they aſſign to all Bodies, and teach, That the *nobleſt* ſort of them are *ſenſitive* and *perceptive*, which are the *Souls* of *Brutes*.

If this be *ſo*, that *Beings* which are not *Spirits*, but *corruptible dependants* upon *Matter*, may be endowed with *Animadverſion*, and *Senſe*; what Arguments have we then to ſhew, that they may not have *Reaſon* alſo, which is but an Improvement, and higher degree of *ſimple Perception?* 'Tis as hard to be apprehended how any of the *reſults* of *Matter*,

should *perceive*; as how they should *join* their *Perceptions* into *Reasonings*; and the same Propositions that prove the possibility of *one*, prove *both*; so that those who affirm that *Beasts* also have their degrees of true Reason, speak very consonantly to *those Principles*. And if such *material*, *corruptible Forms* as the *Peripateticks* describe, are *sufficient* for all the Actions and Perceptions of *Beasts*, I know not which way to go about to demonstrate, that a *more elevated* sort of them may not suffice for the *reasonings* of Men. To urge the Topicks of Proof, I mention'd, from *Notions*, *Compositions*, *Deductions*, and the like, which are alledged to prove our Souls *Immaterial*; I say, to plead *these*, will signifie nothing but *this*, That Humane Souls are no *portions* of *Matter*, nor *corporeal* in their *formal* Essence; But how will they evince, that they are not *educed* from it, that they *depend* not on *Matter*, and shall not *perish*, when their respective Bodies are dissolved. Certainly all those Arguments that are brought for our *Immortality*, are in *this* way clearly disabled. For all that we can say, will prove but *this*, That the Soul is no *Body*, or *part* of *Matter*; but this will amount to no evidence, if there are a *middle* kind of Essences, that are not *corporeal*, and yet *mortal*.

So that when I say, *Philosophy* serves *Religion* against *Sadducism*, I would not be understood to mean the *Peripatetick Hypothesis*; but *that* Philosophy which is grounded upon acquaintance with *real* Nature. *This*, by leaving this whole *unintelligible* sort of Beings out of its Accounts, (as things for which there is no shadow of ground from *Reason*, or *Nature*, but good evidence of their non-existence from both) disappoints the *Sadduce* of the advantage he hath from this needless and precarious Principle. And by distributing *Substance* into *Body*, and *Spirit*, without the admission of *middle* Natures; the *Real* Philosophy gives demonstrative force to those Arguments for our *Immortality*, that prove our Souls are not *Bodies*; and so *Sadducism* is ruined by it.

These things I have thought fit to advertise, not out of design to *censure* any *particular way* of Philosophy; but for the security of my Discourse. And though I have made a little bold with the *Peripateticks* here, yet the great Name of *Aristotle*, to which they pretend, is not concerned; for I am convinc'd,

vinc'd, that he taught no ſuch Doctrine of *ſubſtantial Forms,* as his later Sectators and Interpreters have imputed to Him; who indeed have depraved, and corrupted his *ſenſe,* (almoſt) in the whole Body of his Principles; and have preſented the World with their own *Fancies,* inſtead of the *genuine* Opinions of *that Philoſopher.*

But I proceed,

(III.) THe *Real Philoſophy,* that inquires into *God's Works,* aſſiſts *Religion* againſt **Superſtition**, another of its fatal Enemies. That I may prove *this,* it muſt be premiſed,

That *Superſtition* conſiſts, either in beſtowing *Religious* Valuation and Eſteem on things, in which there is *no good*; or *fearing* thoſe, in which there is *no hurt:* So that this Folly expreſſeth it ſelf, one while in *doting* upon *Opinions,* as *Fundamentals* of *Faith*; and Idoliziug the little *Models* of Fancy, for *Divine* Inſtitutions: And then it runs away afraid of *harmleſs, indifferent* Appointments, and looks *pale* upon the appearance of any *uſual* Effect of *Nature.* It tells *ominous* Stories of every *Meteor* of the Night; and makes *ſad* Interpretations of each *unwonted* Accident: All which are the Products of *Ignorance,* and a *narrow* Mind; which defeat the Deſign of *Religion,* that would make us of a free, manly, and generous Spirit; and indeed repreſent *Chriſtianity* as if it were a *fond, ſneaking, weak* and *peeviſh* thing, that *emaſculates* Mens Underſtandings, making them *amorous* of *toys,* and keeping them under the *ſervility* of *childiſh* fears; ſo that hereby it is expoſed to the *diſtruſt* of larger Minds, and to the *ſcorn* of *Atheiſts*; *Theſe* and many more are the miſchiefs of *Superſtition,* as we have ſadly ſeen and felt.

Now againſt this *evil Spirit,* and its *Influences,* the *Real, Experimental* Philoſophy, is one of the beſt Securities in the World. For by a generous and open Inquiry in the great Field of Nature, Mens *minds* are enlarged, and taken off from all fond adherences to their private Sentiments. They are taught by it, That *Certainty* is not in *many things*; and

that the most *valuable* Knowledge is the *practical*; By which means they will find themselves disposed to more *indifferency* towards those *petty Notions*, in which they were before apt to place a great deal of Religion; and to reckon, that *all that* will signifie, lies in the *few*, *certain*, *operative* Principles of the Gospel; and a *Life* suitable to such a *Faith*; not in *doting* upon *Questions*, and *Speculations* that *engender strife*: and thus the Modern, Experimental *Philosophy* of *God's Works*, is a Remedy against the *notional* Superstition (as I may call it) which *hath* been, and *is* so *fatal* to *Religion*, and the *peace* of Mankind.

Besides which, (by making the Soul *great*) this Knowledge delivers it from fondness on *small* Circumstances, and *imaginary Models*; and from little *scrupulosities* about things *indifferent*, which usually work disquiet in narrow and contracted Spirits: And I have known divers, whom *Philosophy*, and not Disputes, hath cured of this Malady.

This we may observe, that those Remedies are the *best*, and most effectual, that alter the *temper* and disposition of the Mind; For 'tis suitableness to *that*, which makes the way to Mens Judgments, and settles them in their Perswasions. There are few that hold their Opinions by *Arguments*, and *dry Reasonings*, but by *congruity* to the Understanding, and consequently by *relish* in the Affections: So that seldom any thing cures our *intellectual* Diseases, (throughly) but what changes *these*. And I dare affirm, that the *Free*, *Experimental Philosophy* will do this to purpose, by giving the Mind another *Tincture*, and introducing a *sounder Habit*, which by degrees will repel and cast out all Malignities; and settle it in a *strong* and *manly* Temperament, that will master and put to flight all *idle Dotages*, and *effeminate Fears*.

The Truth is, This World is a very *Bedlam*, and he that would cure Madmen, must not attempt it by *Reasoning*, or indeavour to shew the *absurdity* of their *Conceits*; but such a course must be taken, as may restore the Mind to a *right Crasis*; and *that* (when it is effected) will reduce, and rectifie the *extravagances* of the distemper'd Brain, which *Disputes* and *Oppositions* will but *inflame* and make *worse*. Thus, for instance, when frantick Persons are fond of Feathers, and mightily

tily taken with the employment of picking Straws, 'twould signifie very little, to represent to them the vanity of the Objects of their Delights; and when the *Melancholist* was afraid to sit down for fear of being broken, supposing himself of Glass, it had been to little purpose to have declared to him the *ridiculousness* of his Fears; the *disposition* of the Head was to be *alter'd*, before the particular *Phrensie* could be cured.

'Tis too evident how *just* this is in the application to the present Age; *Superstitious* fondness, and fears are a *real* degree of *madness*. And though I cannot say that *Philosophy* must be the only *Catholick* way of *Cure*, (for of *this*, the far greatest part of Men is incapable) yet *this* I *do* affirm, that 'tis a *Remedy*, for those that are strong *enough* to take it: and the rest must be helped by *that*, which *changeth* the *Genius*; and this cannot, ordinarily, be done by any thing that *opposeth* the *particular* Fancy.

However I must say, (2.) That the sort of *Superstition* which is yet behind in my account, and consists in the *causless fear* of some *Extraordinaries*, in *Accident*, or *Nature*, is directly cured by *that* Philosophy, which gives fair *likely hoods* of their *Causes*; and shews that there is nothing in them *supernatural*; the light of the day drives away Apparitions, and vain Images that *fancy* forms in *obscure* shades, and darkness. Thus particularly the Modern Doctrine of *Comets*, which have been always great *Bugbears* to the *guilty*, and *timorous* World; hath rescued Philosophers from the trouble of *dreadful Presages*, and the mischievous Consequences that arise from those *superstitious Abodings*. For whatever the *casual Coincidencies* may be between those *Phænomena*, and the *direful* Events, that are sometimes observed closely to attend them, (which, as my Lord *Bacon* truly notes, are observ'd when they *hit*, not when they *miss*) I say, notwithstanding *these*, the Real, Experimental *Philosophy* makes it appear, that they are *Heavenly* Bodies, far above all the *Regions* of *Vapours*, in which we are not concerned; and so they are neither the *Signs*, nor the *Causes* of our *Mischiefs*.

And

And for the other *little* things, which afford Matter for the *Tales* about *Prodigies*, and other *ominous* Appearings, the *knowledge* of *Nature*, by exciting worthy and magnificent conceptions of the *God* of Nature; cures *that blasphemous abuse* of the adorable Majesty, whereby foolish Men attribute every trivial event that may serve their turns against those they hate, to his *immediate*, *extraordinary* interposal. For 'tis *ignorance* of *God* and his *Works*, that disposeth Men to absurd ridiculous *Surmises*, uncharitable *Censures*, seditious *Machinations*; and (so) to Thoughts that are prejudicial to the *Glory* of *God*, the Interests of *Religion*, and the security of *Government*; to that *Justice* and *Charity* we owe to *others*, and to the *happiness* that we seek *our selves*. To which I add,

That *this* kind of Superstition is a *relique* of *Pagan* Ignorance, which made Men look on *Thunder*, *Eclipses*, *Earthquakes*, and all the more terrifying *Phænomena* of Nature, as the immediate Effects of Powers *Supernatural*; and to *judge Events* by *flights* of *Birds*, and *garbages* of *Cattel*, by the *accidental occursions* of *this* Creature, and the *other*, and almost every *casual* occurrence. But *these* Particulars have been most ingeniously represented, and reproved in a late very elegant Discourse about *Prodigies*; And though I do not acquiesce in the Design of that excellently penn'd Book, which is to *discredit, and take away all kinds of Presages*; Yet I think it hath done rarely well, so far as it discovers the folly and mischiefs of that *ignorant* and *superstitious* Spirit, that makes *every* thing a *Prodigy*. With such apprehensions as *these*, the *knowledge* of Nature fills those Minds that are instructed in it.

And there is no doubt, but that the Antipathy the *Real Philosophy* bears to all the kinds of *Superstition*, is one cause why *zealous* Ignorance brands those Researches with the mark of *Atheism* and *Irreligion*. For superstitious Folly *adopts* those groundless *Trifles*, which Philosophy contemns and reproves, into the *Family* of *Religion*; and therefore reproacheth the Despisers of them, as Enemies to the *Faith* and *Power* of Godliness.

So it fared with some of the bravest Spirits of ancient times, who have had *black Characters* fixt upon their great and worthy

worthy Names, only for their Oppositions of the foolish Rites and Idolatries of the vulgar Heathen. We know the case of *Socrates:* And (as to the *interest* of their *Names*) *that* of *Anaxagoras*, *Theodorus*, *Protagoras*, and *Epicurus*, was much worse; the causless infamy coming down the Stream as far as the last Ages. Since *then*, we know who was an *Heretick* for saying there were *Antipodes*; and a *Pope* was taken for a *Conjurer* for being a *Mathematician*; yea those noble Sciences were counted *Diabolical*; and even the *Sacred* Language could scarce escape the suspicion. In later times *Galilæo* fell into the Inquisition for the Discoveries of his *Telescopes*; and *Campanella* could not endeavour to assert, and vindicate the *freedom* of his Mind, without losing *that* of his Person.

I might come nearer to our own days, and knowledge: *Gothick* barbarity, and the *Spirit* of the *Inquisition* is not quite worn out of the Reformation; Though indeed it ordinarily remains but among the scum and dregs of Men: And no one is *either* less Religious, or less Wise for being accounted an *Atheist* by the common Rabble. But where-ever the knowledge of *Nature*, and *God's Works* hath in any degree obtain'd, those vile *Superstitions* have been despised, and put to an infamous flight. But to take another step,

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(IV.) THe *Real Philosophy*, and *knowledge* of *God's Works*, serves *Religion* against **Enthusiasm**, another dreadful Enemy. Now *Enthusiasm* is a *false conceit of Inspiration*; and all the bold and mistaken Pretensions to the *Spirit* in our days, are of this sort. What particularly *Religion* hath suffer'd from it, would be too long to reckon upon this occasion; It will be enough to say, in an Age that hath so much and such sad experience of it, That *Enthusiasm* hath introduced much phantastry into *Religion*, and made way for all imaginable Follies, and even *Atheism* it self; which it hath done two ways. (1.) By crying up the *Excesses* and *Diseases* of *Imagination* for the greatest height of *Godliness*; And (2.) By the disparagrment of *sober Reason*, as an Enemy to the

the Principles of *Faith.* And Philoſophy aſſiſts Religion againſt both theſe.

FOR the *firſt* in order; The real *knowledge of Nature* detects the dangerous impoſture, by ſhewing what *ſtrange* things may be effected by no *diviner* a cauſe than a *ſtrong Fancy impregnated* by *Heated Melancholy*; For *this* ſometimes warms the Brain to a degree that makes it very *active* and *imaginative*, full of *odd* Thoughts, and *unexpected* Suggeſtions; ſo that if the *Temper* determine the Imagination to *Religion*, it flies at *high* things, at *interpretations* of *dark* and *Prophetick* Scriptures; at *Predictions* of future Events, and *myſterious* Diſcoveries, which the Man expreſſeth fluently and boldly, with a peculiar and pathetick Eloquence; which *pregnances* being not *ordinary*, but much beyond the uſual tone and temper of the *Enthuſiaſt*; and he having heard great things of the *Spirits immediate Motions* and *Inſpirations*, cannot well fail of believing himſelf *inſpired*, and of intitling all the *excurſions* of his *Fancy* to the *immediate Actings* of the *Holy Ghoſt*: and thoſe thoughts by the help of natural *pride* and *ſelf-love*, will work alſo exceedingly upon the heightned *Affections*, and *they* upon the *Body* ſo far, as to caſt it ſometimes into *Raptures*, *Extaſies*, and *Deliquiums* of Senſe, in which every *Dream* is taken for a *Propheſie*, every Image of the *Fancy* for a *Viſion*, and all the *glarings* of the *Imagination* for *new Lights* and *Revelations.*

Thus have our Modern Prophets been inſpired by Temper and Imagination, and not by Deſign only; For we may not think they are all Hypocrites and knowing Impoſtors; No, they generally believe themſelves, and the *ſtrength* of their highly invigorated Fancies ſhuts out the ſober *Light* of Reaſon that ſhould diſabuſe them, as *ſleep* doth that of our External Senſes in our *Dreams.* And the ſilly People that underſtand not *Nature*, but are apt to take every thing that is *vehement* to be *ſacred*, are eaſily deceived into the belief of thoſe Pretenſions; and thus *Diſeaſes* have been *worſhip'd* for *Religion.* This account the *Philoſophy* of *Humane Nature* gives of *that*, by which the World hath been ſo miſerably abuſed.

And when we caſt our eyes abroad, we may plainly ſee that thoſe *glorious* things are no *more*, than what hath been done

by

by the *Extatick* Priests of the *Heathen* Oracles, and the Madmen of all Religions; by *Sybils*, *Lunaticks*, *Poets*, *Dreamers*, and transported Persons of all sorts: And it may be observ'd daily to what degrees of elevation *excess* of *drinking* will heighten the Brain, making some *witty*, *nimble*, and *eloquent*, much beyond the ordinary proportion of their Parts and Ingenuity; and inclining others to be hugely *devout*, who usually have no great *sense* of Religion; As I knew one, who would pray rapturously when he was *drunk*, but at other times was a *moping* Sot, and could scarce speak sense.

Thus also some kinds of *Madness*, *Diseases*, *Accidents*, *Peculiarities* of *Temper*, and other natural things that *heat* the Brain, fill Men with high surprizing *Conceits* about Religion, and furnish them with *fervid* Devotion, great *readiness* of Expression, and unexpected *applications* of Scripture to their crasy Conceits; I say, the *Experimental Philosophy* of our *Natures* informs us, that all this is common in *alienations*, and *singularities* of Mind and *Complexion*. And they were remarkable in the *Prophets* of the *Heathen*, and the *Priest* whom Saint *Austin* knew, that would *whine* himself into an *Extasie*; In the wonderful Discourses of the *American* Bishop, that said he was the *Holy Ghost*, and the *canting fluency* of the *German Enthusiasts*, some of whose Imaginations were as *wild* and *extravagant*; of such Instances I might make up a much larger Catalogue, if I should descend to our *Domestick Lunaticks*, but their temper is well known, and therefore I only add this more;

That I have often met with a poor Woman in the North, whose habitual conceit it was, That she was *Mother of God*, and *of all things living*; I was wont to personate a kind of complyance with her Fancy, and a modest desire to be further informed about it; which gentleness drew from her so many odd fetches of Discourse, such applications of Scripture, and such wonderful references to Things, in which she was never instructed, that look'd like gleanings out of *Hobbs* and *Epicurus*, that I have been much amazed at her talk: And yet when I diverted her to any thing else of ordinary Matters, she spoke usually with as much sobriety and cold discretion, as could well be expected from a Person of her Condition;

nor did ſhe uſe to be extravagant in any thing, but about that particular Imagination; which Inſtance among many others I might produce, very much confirms me in the truth of that Obſervation of thoſe Philoſophers who have given us the beſt light into the *Enthuſiaſtick* Temper, *viz. That there is a ſort of madneſs, which takes Men in ſome particular things, when they are ſound in others:* which one Propoſition will afford a good account of many of the *Phænomena* of *Enthuſiaſm*; and ſhews that the *Extravagants* among us may be really *diſtracted* in the *Affairs* of *Religion*, though their Brains are untouc'd in *other* Matters.

Thus a *Philoſophical* uſe of *obſervation*, and the *knowledge of Humane Nature by it*, helps us to diſtinguiſh between the *Effects* of the adorable *Spirit*, and *thoſe* of an hot diſtemper'd Fancy; which is no ſmall advantage for the ſecuring the *Purity*, *Honour*, and *all* the intereſts of *Religion*.

But (2.) there is another miſchief of the *Enthuſiaſtick* Spirit behind, and that is its bringing *Reaſon* into diſgrace, and denying the *uſe* thereof in the Affairs of *Faith* and *Religion:* This is an evil that is the cauſe of many *more*; for it hath brought into the World all kinds of *Phantaſtry* and *Folly*, and expoſed Religion to Contempt and Deriſion, by making *Madneſs* and *Diſeaſes Sacred:* It leads Mens Minds into a maze of *confuſed* Imaginations, and betrays them into Bogs and Precipices, deprives them of their Light and their Guide, and lays them open to all the Deluſions of Satan, and their own diſtemper'd Brains: It takes *Religion* off from its *Foundations*, and leaves the Intereſt of Eternity in Mens Souls, to *Chance*, and the Hits of Imagination; teaching thoſe that are deluded to lay the ſtreſs of all upon *Raptures*, *Heats*, and *Myſterious* Notions, while they forget] and ſcorn the *plain* Chriſtianity which is an *imitation* of Chriſt in *Charity*, *Humility*, *Juſtice*, and *Purity*; in the exerciſe of all Vertue, and command of our ſelves: It renders Men obnoxious to all the Temptations of *Atheiſm*, and the blackeſt *Infidelity*; and makes it impoſſible to convince an Infidel, to ſettle one that doubts, or to recover one that is fallen off from the Faith. Theſe Evils I am content only to name in this place, having repre-

represented them more fully in another Discourse; and the *experience* of our own Age may convince us, with a little consideration upon it, That all those fatal Mischiefs have been the Effects of the Contempt, and Disparagement of *Reason*.

But yet though I affirm *this*, I am not so rash, or so unjust as to believe, or say, That this Spirit hath produced all those sad things in every one that speaks *hotly*, and *inconsiderately* against *Reason*: I am far from the wildness of such a censure, because I know how much *imprudent Zeal*, *customary Talk*, *high Pretensions*, and *superstitious Fears*, may work even upon *honest Minds*, who many times hold bad things in the *Principle*, which they deny in the *Practice*, and so are *upright* in their *Wills*, while they are very much *confused*, and *mistaken* in their *Understandings*. This I account to be the case of multitudes of pious People in reference to *Reason*. They have heard hot-headed indiscreet Men declaim against it, and many of them, whose Opinions will not bear the Light, have an interest to do so; Their Pretensions were plausible, and their Zeal great; their Talk loud, and their Affirmations bold; and the honest well-meaning Folks are caught in their Affections; and *these* lead bad Principles into their Minds, which are neither disposed, nor able to examine: So they believe and speak after their Teachers; and say, That *Reason* is *a low*, *dull* thing, *ignorant* of the *Spirit*, and an *Enemy* to *Faith* and *Religion*; while in this they have no clear thoughts, nor yet any evil meaning; But let these Fancies swim a-top in their Imaginations, and upon occasions they run out at the Tongues end, though they are not always improved to those deadly Practices. For *Charity* and *Caution* I have said this; but yet nothing hinders but that all the fore-cited Evils are justly said to be the *Tendencies*, and in too many Instances have been, and are the Effects of this *Spirit*.

And now I doubt not but 'twill be granted readily by all considering Men, that whatever assists *Religion* against this *destructive* Enemy, doth it most important service; and this the *Free* and *Real Philosophy* doth in a very eminent degree.

In order to the proof of this, we may consider what I intimated just now, *viz.* That Men are led into, and kept in this Fancy of the *Enmity* of *Reason* to *Religion*, chiefly by two things:

(1.) By an *implicit* assent to the *Systemes* and *Dictates* of those who *first* instructed them; And (2.) By defect in clearness of Thoughts, and the ability to state things *distinctly*, and to *understand* their *Dependencies* and *Sequels*; Both which Imperfections the *Free Philosophy* cures.

For as to the *First*, (1.) *That* Philosophy *begins* with the *inlargement* of the *Mind*, and attempts to free it from *Prejudices* and *Pre-ingagements*, which sophisticate and pervert our Judgments, and render us incapable of discerning Things as they are. *Modest*, *impartial* enquiry is the *Foundation* of the *real*, *experimental way* of Philosophy. Not that it teacheth *Scepticism* and *Neutrality* in all Things, but this *Caution* in our Disquisitions, That we do not *suddenly* give *firm* assents to Things not well understood or *examin'd:* which no doubt is very just and safe. But as to what concerns those, who through ignorance, or other occasions, are incapable of making due enquiry, I think they ought not to concern themselves about Matters of Speculation at all; or at least not to *affirm* any thing *positively* about them. 'Tis enough for *such* to believe and practise the *plain* Duties of Religion, which are *clear* in the Holy Oracles, and with which they may be acquainted without much *sagacity*, or *deep Judgment:* For Matters of *Theory*, and difficult Enquiry, appertain not to the *vulgar* and lower rank of Understandings: But for those who are capable of *search* after *Truth*, and are provided with anvantages for it, *Freedom* of *Judgment* is necessary in order to their success. With this, I said, the *Real Philosophy begins*; and in all its progresses still more and more disposeth the Mind to it, aud so delivers it from the *vassalage* of *Customary* Sayings and Opinions.

And now whoever is *so* disposed, will not be so ready to believe that *Reason* is an *Enemy* to *Religion*, till he have consider'd, and examin'd the Matter with an *impartial* Judgment: And I dare say, whoever shall do *that*, will want nothing to convince him, that such an Opinion is false and groundless,

but

but *clear* and *distinct* Thoughts, and the knowledge of Consequence, with which *Philosophy* will furnish him.

This is the *second* way whereby it helps to overthrow this Principle of *Enthusiasm*, viz.

(2.) By teaching us to *state* Matters *clearly*, and to draw out those conclusions that are lodged in them. For 'tis *confusion* of *Notions*, and a great *defect* in reasoning, that makes dark *Zeal* to *rave* so *furiously* against *Reason*. Now *Philosophy* is *Reason methodiz'd*, and improved by *Study*, *Observation*, and *Experiment*; and whoever is addicted to *these*, is exercised frequently in inquiry after the *Causes*, *Properties*, and *Relations* of Things, which will inure the Mind to great *intentness*, and inable it to *define* and *distinguish*, and *infer* rightly; And by these the Allegations against Reason will be made appear to be idle *Sophisms*, that have no sound sense or substance in them.

And though the Discourses of some, who have talk'd much of Philosophy and *Reason*, have been sometimes *bold* and sawcy, and opposite to the Interests of Religion: Yet *true Philosophy*, and *well manag'd Reason*, *vindicate* Religion from those abuses, and shew, that there was *Sophistry* and *imposture* in *those* Pretensions: So that *they* are no more to be blamed for the *Insolencies* and *Riots* of those that usurp their Name, than Religion it self is, for the *Immoralities* of such as cloath themselves in the Garments of *external* Piety and Saintship. Thus of the services of *Philosophy* against ENTHUSIASM. I come now to the last Instance.

(V.) It

(V.) IT helps *Religion* against the **Humour of Disputing**; By which I mean *that* evil Genius, that makes Men confident of uncertain Opinions; and clamorously contentious against every different Judgment. This is that pestilent Spirit that turns Religion into *Air* of *Notion*, and makes it *intricate* and *uncertain*; subject to eternal *Quarrels*, and Obnoxious to *Scepticism* and *Infidelity*; *That* which supplants *Charity*, *Modesty*, *Peace*, and *Meekness*; substituting in their room, *Rage* and *Insolence*, *Pride* and *Bitter Zeal*, *Clamours* and *Divisions*, and all the Opposites of the Spirit of *Christ*, and the *Gospel*. So that, it *depraves Religion*, and makes its *Sacred* Name an *Instrument* to promote the Projects of the *Kingdom of Darkness*; by envenoming Men one against another, and *inflaming* their Spirits, and *crumbling* them into Sects, and *disturbing* Societies; and so it hinders the *Progress* of the Gospel, and lays it open to the scorns of *Unbelievers*; it turns Men from the desire of *practising*, to the itch of *talking*, and abuses them into this dangerous belief, That *Godliness* consists more in their beloved *Orthodoxy*, than in a *sober Vertue*, and the *exercise* of *Charity*; it makes them *pert* and *pragmatical*; *busie* about the *Reformation* of *others*, while they neglect their *own* Spirits; fancying a perfection in the fluency of the *Tongue*, while the *worst* of Passions have the Empire of their *Souls*. *These* are some of the sad Effects of the *Humour* of Disputing, which hath done deplorable execution upon Religion in all Places and Times; and therefore 'tis none of the least Services that can be afforded it, to destroy this evil Genius; and there is nothing, meerly *humane*, that contributes more towards the rooting of it out of the World, than the *Free* and *Real Philosophy*. For,

(1.) An intimate Commerce with *God's Works*, gives us to see the mighty *Difficulties* that are to be met in the *speculation* of *them*; and thereby Men are made less *confident* of their Sentiments about *Nature*, and by many Considerations and *Observations* of *this* kind, are at length brought to such an *habitual* Modesty, that they are afraid to pass bold Judgments upon

upon those *Opinions* in *Religion*, of which there is no *infallible* assurance.

And (2.) By the *frequent exercises* of our Minds, we come to be made sensible how *easily*, and how oft we are deceived, through the *fallibility* of Sense, and *shortness* of our Understandings; by *Education*, *Authority*, *Interest*, and our *Affections*; and so are disposed to a more *prudent coldness* and *diffidence* in things of doubtful Speculation, by which the *Disputing Humour* is destroyed at the bottom. Besides which,

(3.) The *Real Philosophy* brings Men in love with the *Practical* Knowledge: The more we have imployed our selves in *Notion* and *Theory*, the more we shall be acquainted with the *uncertainty* of Speculation; and our esteem, and love of Opinions will abate, as that sense increaseth: By the same degrees our respect and kindness for *Operative* knowledge will advance, and grow; which disposition will incline us also to have less regard to *Nicities* in *Religion*, and teach us to lay out our chief Cares and Endeavours about *Practical* and *certain Knowledge*, which will assist and promote our *Vertue*, and our *Happiness*; and incline us to imploy our selves in living according to it; And this also will be an effectual means to destroy the *Humour* of *Contending*.

(4.) *Philosophy* gives us a sight of the *Causes* of our *Intellectual* Diversities; and so lessens our expectation of an *Agreement* in Opinions; and by this, it discovers the *unreasonableness* of making consent in less certain Tenents, the *condition* of *Charity* and *Union*; and of being *angry*, and dividing upon every *difference* of *Judgment*; By which the *hurtful* Malignities of *Disputes* are *qualified*, and the Disease it self is *undermined*.

(5.) It inclines Men to place the *Essential Principles* of *Religion* only in the *plain*, and *certain* Articles. For Philosophers are disposed to think, that *Certainty* is in a little room: And whoever believes so, concerning the Tenents of *Theology*, will not lay the main stress upon *any*, but the *clear* acknowledg'd Principles; by which prudent Caution he serves all the *important* Concernments of *Religion*. He will not *wrangle* for every *Conceit*; nor *divide* for every *Difference*; but takes

care

care to walk in the ways of *Charity* and *Obedience*; And so the *Church* is safe, and *Schisms* are prevented and cured.

(6.) The *Real Philosophy* ends many *Disputes*, by taking Men off from *unnecessary Terms* of *Art*, which very often are the chief occasions of the Contests: If things were stated in *clear* and *plain* words, many Controversies would be ended; and the Philosophy I am recommending, inclines Men to *define* with *those* that are *simplest* and *plainest*; and thereby also it very much promotes the Interests both of *Truth* and *Peace*.

In sum, I say, the *Free* and *Real* Philosophy makes Men deeply sensible of the Infirmities of Humane Intellect, and our manifold hazards of *mistaking*, and so renders them *wary* and *modest*, *diffident* of the *certainty* of their *Conceptions*, and averse to the *boldness* of *peremptory asserting*. So that the *Philosopher thinks much*, and *examines* many things, separates the *Certainties* from the *Plausibilities*, *that* which is *presumed* from *that* which is *prov'd*; the *Images* of *Sense*, *Phansie*, and *Education*, from the results of *genuine* and *impartial Reason*. Thus he doth before he *Assents* or *Denies*; and *then* he takes with him also a Sense of his own *Fallibility* and *Defects*, and never concludes but upon resolution to alter his Mind upon contrary Evidence. Thus he conceives *warily*, and he speaks with as much *caution* and *reserve*, in the humble Forms of [*So I think*, and *In my Opinion*, and *Perhaps 'tis so*--] with great difference to *opposite* Perswasion, candour to *Dissenters*, and *calmness* in *Contradictions*, with *readiness* and *desire* to *learn*, and great delight in the Discoveries of Truth, and Detections of his *own* Mistakes. When he argues he gives his *Reasons* without *Passion*, and *shines without flaming*, Discourses without *wrangling*, and *differs* without *dividing*. He catcheth not at the *Infirmities* of his *Opposite*, but lays hold of his *Strength*, and weighs the Substance without blowing the *dust* in his *eyes*. He entertains what he finds *reasonable*, and *suspends* his Judgment when he doth not clearly *understand*. This is the Spirit with which Men are inspired by the Philosophy I recommend. It makes them so *just*, as to allow that liberty of Judgment to *others*, which *themselves* desire, and *so* prevents all *imperious Dictates* and *Imposings*, all *Captious Quarrels* and *Notional Wars*. And that

that this is the *Philosophick* Genius, may be shewn in a *grand* Instance, the *ROYAL SOCIETY*, which is the *Great Body* of *Practical* Philosophers. In *this Assembly*, though it be made up of all kinds of *Dispositions*, *Professions*, and *Opinions*; yet hath *Philosophy* so rarely temper'd the *Constitution*, that those that attend there, never see the least inclination to any unhandsome *opposition* or uncivil *reflexion*, no bold *obtrusions* or confident *sayings*. The forbearing such Rudenesses is indeed a *Law* of *that Society*, and their Designs and Methods of Inquiry, naturally form Men into the *modest* temper, and secure them from the danger of the *Quarrelsome* Genius. This is palpable evidence of the *sweet* Humour, and *ingenious Tendencies* of the *Free Philosophy*; and I believe 'twill be hard to shew such another Example in any so great a Body of *differing Inclinations* and *Apprehensions*. Thus the *Experimental Learning* rectifies the *grand Abuse*, which the *Notional* Knowledge hath so long foster'd and promoted, to the *hinderance* of *Science*, the *disturbance* of the *World*, and the prejudice of the *Christian Faith*. And there is no doubt, but as it hath altered and reformed the *Genius* in Matters of Natural *Research* and *Inquiry*; so it will in its progress dispose Mens Spirits to more *Calmness* and *Modesty*, *Charity* and *Prudence* in the Differences of *Religion*, and even Silence *Disputes* there. For the *free sensible* Knowledge tends to the altering the *Crasis* of Mens Minds, and so cures the *Disease* at the *Root*; and *true Philosophy* is a *Specifick* against *Disputes* and *Divisions*.

To confirm which we may observe further, That where-ever *this* sort of *Knowledge* prevails, the *Contentious Divinity* loseth ground; and 'twill be hard to find any one of those Philosophers, that is a zealous Votary of a Sect: which reservedness doth indeed give occasion to Sectaries, and Bigotts to accuse them of *Atheism* and *Irreligion*: But it really is no Argument of *less* Piety; but of *more* Consideration and Knowledge. And 'twould make much for the advantage of Religion, and their own, if those fierce Men would understand, that Christianity should teach them *that*, which they rail against in the *Philosophers*.

But now I must expect to hear,

(I.) That *Disputes* serve to discover *Truth*; as latent Fire is excited, and disclosed by the collision of hard Bodies: So that the Pretence is, That Philosophy doth, on this account, rather disserve than promote the Interests of Religion.

To this, I Answer, (1.) That all the *necessary*, *material* Truths in Divinity are *already* discover'd; and we have no need of *New Lights there*; the *Ancientest* are *truest* and *best*; though in the disquisitions of *Philosophy*, there will be always occasions of proceeding. I add, (2.) *Disputes* are one of the *worst* ways to *discover Truth*; If *new* things were to be found out in *Religion*, as well as *Nature*, they would scarce be disclosed by *this* way of Enquiry. A *calm* Judgment, and *distinct* Thoughts, and *impartial* Consideration of *many* things, are *necessary* for the *finding Truth*; which lies *deep*, and is mingled up and down with much *Error*, and *specious* falshood; and 'tis *hard*, if not utterly *impossible*, to preserve any *one* of *these* in the *heat* of *Disputation*: In such Occasions, the *Mind* is commonly *disordered* by *Passion*, and the Thoughts are *confused*, and our Considerations *tyed* to *those* things which give *colour* to our *Opinions*. We are biast by our *Affections* towards our *own* Conceits; and our *love* to them is *inflamed* by *opposition*; we are made *incapable* of entertaining the assistance of our Opposites Suggestions by *strong prejudice*, and inclined to *quarrel* with every thing he saith by *spight*, and desire of *triumph*: and *these* are ill Circumstances for the *discovery* of *Truth*: He is a wonderful Man indeed that can thread a Needle when he is at Cudgels in a crowd; and yet this is as easie, as to find Truth in the hurry of Disputation. The Apostle intimates, 1 *Tim.* 6. 5. That *perverse Disputers* are *destitute* of *Truth*; and tells us, That of the *strife* of *words* come *envy*, *railings*, *evil surmisings*, but no *discovery* of *unknown Verities*.

But (II.) we are told, in favour of Disputes in Religion, That we are to *contend earnestly for the Faith that was once delivered to the Saints*; and hereby *Heresies* are said to be confuted and overthrown: So that the disabling and suppressing of Disputes,

Disputes, seems to be a weakening, rather than any advantage to Religion, and the Concernments of it.

To this, I say, That by the *Faith* we are to *contend* for, I conceive, the *Essentials*, and *certain* Articles are meant; *These* we *may*, and we *ought*, to endeavour to *defend* and *promote*, as there is occasion; and we have seen, how the *Real Philosophy* will help our *Reasons* in that Service. But *pious Contentions* for *these*, are not the *disputings* of which I am now discoursing, those are stiff Contests about uncertain Opinions: And such I dare very boldly say, are no Contentions for the Faith, but the Instruments of the greatest mischiefs to it. As for those other *Disputes* that are used to convince Men of the *Truths* of the Gospel, and the great Articles thereof; and for the disproving *Infidelity* and *Heresie*; they are necessary, and *Philosophy* is an excellent help in *such* Contests.

So that those other Objections pleadable from the *necessity* of *proving* and *trying* our Faith, and convincing *Hereticks*; From the Example of our Saviour's *disputing* with the *Doctors* and the *Sadduces*, and of St. *Paul* at *Athens* with the *Jews*; *These*, and such other little *Cavils*, can signifie nothing to the disadvantage of what I have said about the *Humour* of *Disputing*, in Matters of *doubtful* and *uncertain* Opinions; against which the *Real Philosophy* is an Antidote.

AND thus I have shewn, under five material Heads, That the *knowledge* of *Nature*, and the *Works* of *God*, promotes the greatest *Interests* of *Religion*; and by the three last it appears how fundamentally opposite it is to all *Schism* and *Fanaticism*, which are made up and occasioned by *Superstition*, *Enthusiasm*, and *ignorant*, *perverse Disputings*. So that for *Atheists*, and *Sadduces*, and *Fanaticks*, to detest and inveigh against *Philosophy*, is not at all strange; 'Tis no *more* than what may well be expected from Men of that sort; *Philosophy* is their Enemy; and it concerns them to *disparage* and *reproach* it: But for the *Sober* and *Religious* to do any thing so unadvised, and so prejudicial to Religion, is wonderful and deplorable: To set *these* right in their Judgment about *Philosophical* Inquiry into *God's Works*, is the Principal design of *these*

these Papers; and in order to the further promoting of it, I advance to the last Head of Discourse proposed, *viz.*

(IV.) THat *the Ministers and Professors of Religion ought not to discourage, but promote the knowledge of Nature, and the Works of its Author.*

This is the result of the whole Matter, and follows evidently upon it. And though it will not infer a necessity of *all* Mens *deep* search into Nature, yet *this* it will, That no *Friend* or *Servant* of *Religion* should *hinder* or *discountenance* such *Inquiries*: And though most *private* Christians, and some *publick* Ministers, have neither leisure nor ability to look into Matters of natural Research and Inquisition; yet they ought to *think candidly*, and *wish well* to the endeavours of *those* that *have*; and 'tis a *sin* and a *folly* either in the one or other to censure, or discourage those worthy Undertakings. So that I cannot without trouble, observe how apt *some* are, that pretend much to *Religion*, and some that *minister* in it, to load those that are *studious* of *God's* Works, with all the *odious* Names that contempt and spight can suggest; The *Irreligion* of which injurious carriage, nothing can excuse but their *ignorance*; And I will rather hope that they neither *know* what they *say*, nor what they *do*, than believe that they have any direct design against the *Glory* of their *Maker*, or against any laudable endeavours to promote it.

I know well what mischief *Prejudice* will do, even upon Minds that otherwise are *very honest*, and *intelligent enough*. And there are many *common* slanders, and some plausible *Objections* in the Mouths of the *Zealous* against *Philosophy*, which have begot an ill Opinion of it in well-meaning Men, who have never examined things with any depth of Inquiry. For the sake of such, I shall produce the most *considerable* Allegations of both sorts, and I hope make such returns to them, as may be sufficient to satisfie those whose Minds are not barr'd by *Obstinacy*, or *Ignorance*.

I ſpeak *firſt* of the *bold* and *broad Slanders*, among which, that

(I.) Of Atheiſm is one of the moſt *ordinary*; But certainly 'tis one of the moſt *unjuſt* Accuſations that Malice and Ignorance could have invented. This I need not be induſtrious to prove here, having made it appear, that Philoſophy is one of the beſt Weapons in the World to defend Religion againſt it; and my whole Diſcourſe is a confutation of this envious and fooliſh charge.

Concerning it I take notice, That *Philoſophical* Men are uſually dealt with by the *Zealous*, as the greateſt Patrons of the *Proteſtant* Cauſe are by the *Sects*. For as the *Biſhops* and other Learned Perſons, who have *moſt ſtrongly* oppugned the *Romiſh Faith*, have had the ill luck to be accuſed of *Popery* themſelves; in like manner it happens to the *humbleſt* and *deepeſt Inquiſitors* into the *Works* of *God*, who have the moſt and fulleſt *Arguments* of his *Exiſtence*, have raiſed *impregnable Ramparts*, with much *induſtry* and *pious pains* againſt the *Atheiſts*, and are the *only Men* that can with ſucceſs ſerve *Religion* againſt the *Godleſs Rout*; *Theſe*, *Superſtitious Ignorance* hath always made the loudeſt out-cry *againſt*, as if themſelves were *guilty* of *that* which they have moſt happily *oppugned* and *defeated*. And the certain way to be eſteemed an *Atheiſt* by the *fierce* and *ignorant Devoto's*, is to ſtudy to lay the *Foundations* of *Religion ſure*, and to be able to ſpeak *groundedly* and to *purpoſe* againſt the *deſperate* Cauſe of the *black Conſpirators* againſt *Heaven*. And the greateſt Men that have imploy'd their Time and Thoughts this way, have been *pelted* with this *Dirt*, while they have been labouring in the *Trenches*, and indeavouring to ſecure the *Foundations* of the *Holy Fabrick*.

But beſides I obſerve, That *narrow*, *angry* People take occaſion to charge the *freer Spirits* with *Atheiſm*, becauſe they move in a *larger* Circle, and have no ſuch *fond adherence* to *ſome Opinions* which *they adore* and count *Sacred*. And for my own part, I confeſs I have not *Superſtition* enough in my *Spirit* or *Nature*, to incline me to doat upon all the Principles I judge *true*, or to ſpeak ſo *dogmatically* about them as I perceive

ceive *confident* and *disputing* Men are wont. But contenting my ſelf, with a *firm aſſent* to the *few practical Fundamentals* of *Faith*, and having *fix'd that end* of the *Compaſs*, I deſire to preſerve my *Liberty* as to the *reſt*, holding the *other* in ſuch a poſture, as may be ready to draw thoſe *Lines*, my Judgment informed by the *Holy Oracles*, the *Articles* of *our Church*, the *Apprehenſions* of *wiſe Antiquity*, and my *particular Reaſon*, ſhall direct me to deſcribe. And when I do *that*, 'tis for *my ſelf*, and my *own ſatisfaction*; but am not concern'd to impoſe my *Sentiments* upon *others*: nor do I care to endeavour the change of their Minds, though I judge them miſtaken, as long as *Vertue*, the *Intereſts* of *Religion*, the *Peace* of the *World* and *their own* are not *prejudiced* by their *Errors*. By this *modeſt* indifference I ſecure *Charity* for all the *diverſities* of *Belief*, and *equally* offer my *Frienſhip* and *Converſes* to the ſeveral *Sects* and *Perſwaſions*, that ſtick to the *plain Principles* of the *Goſpel* and a *Vertuous Life*, overlooking their particular *fondneſſes* and *follies*. This is the *temper* of my *Genius*, and *this* ſome *warm* People, who have more *Heat* than *Light*, are apt to call *Scepticiſm* and *cold Neutrality*: But that it deſerves *better* Names, I have made appear in ſome other Papers.

True it is, That the Men of the meer *Epicurean* ſort, have *left God*, and *Providence* out of their Accounts; But *other Philoſophers* have ſhewn what *Fools* they are for doing *ſo*, and how *abſurd* their *pretended* Philoſophy is in ſuppoſing things to have been made and ordered by the *caſual* hits of *Atoms*, in a *mighty Void*. And though their general Doctrine of *Matter* and *Motion* be exceeding *ancient*, and very accountable; when we ſuppoſe *Matter* was at firſt *created* by Almighty Power, and its *Motions ordered*, and directed by *Omniſcient* Wiſdom; Yet the ſuppoſal, that they are *independent* and *eternal*, is very precarious and unreaſonable. And that all the *regular* Motions in Nature ſhould be from *blind tumultuous* jumblings, intermixtures, is the moſt *unphiloſophical* Fanſie, and *ridiculous* Dotage in the World; So that there is no reaſon to accuſe *Philoſophy* of a Fault, which *Philoſophy* ſufficiently ſhames and reproves; and yet I doubt too many have entertain'd great prejudice againſt it upon this ſcore; and 'tis a particular brand upon ſome of the modern Men, that they have revived

the Philoſophy of *Epicurus*, which they think to be in its whole extent *Atheiſtical* and *Irreligious*.

To which I ſay, that the Opinion of the *World's* being made by a *fortuitous* concurrence of *Atoms*, is *impious* and *vile:* And this thoſe of *Epicurus* his Elder School taught: Whereas the late Reſtorers of the *Corpuſcularian Hypotheſis* hate, and deſpiſe the wicked and abſurd Doctrine; But thus far they think the *Atomical Philoſophy reaſonable*, *viz.* as it teacheth, *That the Operations of Nature are performed by* ſubtile ſtreams *of* minute *Bodies*; *and not by I know not what imaginary* Qualities *and* Forms: They think, *That the various* Motions *and* Figures *of the parts of Matter, are enough for all the* Phænomena, *and all the varieties, which with relation to our Senſes we call* ſuch, *and* ſuch Qualities. But then they ſuppoſe, and teach, *That God created Matter, and is the Supreme Orderer of its Motions, by which all thoſe Diverſities are made:* And hereby *Piety*, and the *Faith* of *Providence* is ſecured.

This, as far as we know any thing of elder Times, was the *ancient* Philoſophy of the World, and it doth not in the leaſt interfere with any *Principle* of *Religion*. Thus far I dare ſay I may undertake for moſt of the *Corpuſcularian Philoſophers* of our times, excepting *thoſe* of M. *Hobbes* his way.

And therefore I cannot but wonder at a late Reverend Author, who ſeems to conclude thoſe *Modern* Philoſophers under the name and notion of ſuch *Somatiſts*, as are for *meer Matter* and *Motion*, and exclude *immaterial* Beings: whereas *thoſe* Learned Men, though they own *Matter* and *Motion* as the *material* and *formal* cauſes of the *Phænomena*; They do yet acknowledge God's *Efficiency*, and *Government* of all Things, with as much ſeriouſneſs; and contend for it with as much zeal, as any *Philoſophers* or *Divines* whatſoever. And 'tis very hard that any number of Men ſhould be expoſed to the ſuſpicion of being *Atheiſts*, for denying the *Peripatetick Qualities* and *Forms*; and there is nothing elſe overthrown by the *Corpuſcularian* Doctrines, as they are managed by *thoſe Philoſophers*. So that methinks that Reverend Perſon hath not dealt ſo *fairly* with the great Names of *Des-Cartes*, and *Gaſſendus*, where he mentions them promiſcuouſly with the

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meer *Epicurean* and *Hobbian Somatists*, without any note to distinguish them from *those Sadduces*; For both those celebrated Men have laboured much in asserting the Grand Articles of Religion against the *Infidel* and *Atheist*.

But (2.) 'tis alledg'd by some, *Philosophy disposeth Men to despise the Scriptures*; or *at least to neglect the study of them*; and therefore is to be flighted, and exploded among Christians.

To this I say, That *Philosophy is the knowledge of God's Works*; and there is nothing in *God's Works* that is *contrary* to *his Word*; How then should the *study* of the *one* incline Men to *despise* the *other?* Certainly had there been any such *impious* tendency in searching into God's Works to the *lessening* of our *value* of the *Scriptures*, The Scripture it self would never have recommended it so much unto us; Yea, *this* is so far from being *true*, that on the contrary, the *knowledge* of *God's Works* tends in its proper nature to dispose Men to *love* and *veneration* of the Scriptures; For by *familiarity* with *Nature*, we are made sensible of the *Power*, *Wisdom* and *Goodness* of God, fresh Instances of which we shall find in all things; And 'tis one great design of the Scripture to promote the *Glory* of *these Attributes*: How then can he, that is much affected with them, chuse but *love*, and *esteem* those Holy Records which so gloriously illustrate the *Perfections* he *admires?*

Besides, by *inquiry* into *God's Works*, we discover continually, how little we can comprehend of his *Ways* and *Menagements*; and he that is sensible of *this*, will find himself more inclined to reverence the *declarations* of his *Word*, *though they are beyond his reach*, and *though he cannot fathom those Mysteries*, *he is required to believe*: Such a disposition is necessary for the securing our Reverence to the Divine Oracles, and *Philosophy* promotes it much.

So that, though 'tis like enough, there may be those that *pretend* to Philosophy, who have less veneration and respect for the Scripture than they ought, yet that *impious* disesteem of those *sacred* Writings, is no *effect* of their *Philosophy*, but of their *corrupt* and *evil* Inclinations: And to remove the scandal brought upon Natural Wisdom by those Pretenders, it may

may be observed, that none are more *earnest*, or more *frequent* in the *proof* and *recommendation* of the *Authority* of *Scripture*, than those of *Philosophical* Inclination and Genius, who by their *publick* Capacity and Profession, have the best opportunities to give testimony to the Honour of that *Divine* Book.

But to justifie the imputation of the disservice *Philosophy* doth *Religion*, and the *Scriptures*, it may by some be pleaded,

That *Philosophy*, *viz.* that which is called, the *new*, teacheth Doctrines that are contrary to the *Word of God*; or at least such as we have no ground from *Scripture* to believe; For instance, That the *Earth moves*: and, That the *Moon is of a Terrestrial* Nature, and capable of Inhabitants: which Opinions are presumed to be *impious*, and *Antiscriptural*.

In return to this, I say,

(1.) In the *general*; 'Tis very true, that *Philosophy* teacheth many things which are not *revealed* in Scripture; for *this* was not intended to instruct Men in the *Affairs* of *Nature*; but its *Design* is, to *direct* Mankind, and even *those* of the *plainest* Understandings, in *Life* and *Manners*; to propose to us the *way* of *Happiness*, and the *Principles* that are *necessary* to guide us in it; with the several *Motives* and *Incouragements* that are proper to *excite* our Endeavours, and to bear them up against all *Difficulties* and *Temptations*. This, I say, was the *chief* Design of that *Divine* Book; and therefore 'tis accommodated, in the main, to the most *ordinary capacities*, and speaks after our *manner*, suitably to *sense*, and *vulgar Conception*. Thus we find that the *Clouds* are called *Heaven*, the *Moon one* of the *greater Lights*, and the *Stars* mentioned, as *less considerable: and the Stars also*, Gen. 1. We read of the *going down* of the *Sun*, and of the *ends* of the *Earth*, and of the *Heavens*; and divers other such Expressions are in the Scriptures, which plainly shew, That they do not concern themselves to rectifie the Mistakes of the *Vulgar*, in *Philosophical* Theories, but comply with their

Infirmities, and speak according as they understand. So that,

(2.) No *Tenent* in *Philosophy* ought to be condemned and exploded, because there may be some occasional Sayings in the Divine Oracles, which seem not to comport with it; And therefore the *Problems* mentioned, concerning the *Motion* of the *Earth*; and *Terrestrial Nature* of the *Moon*, ought to be left to the *Disquisitions* of *Philosophy*: The *Word of God* determines *nothing* about them; for *those* Expressions, concerning the *running* of the *Sun*, and its *standing* still, may very well be interpreted, as spoken by way of *accommodation* to *Sense*, and *common* apprehension; as 'tis certain, that those of its *going down*, and *running from one end of the Heavens to the other*, and numerous resembling Sayings, are *so* to be understood. And when 'tis else-where said, That the *Foundations* of the *Earth* are so *fixt*, that it cannot be *moved* at *any time*, or to that purpose; 'Tis supposed, by Learned Men, that nothing else is meant but *this*, That the *Earth* cannot be *moved* from its *Centre*, which is no prejudice to the Opinion of its being *moved upon it*.

For the other *Hypothesis* of the *Moon's* being a kind of *Earth*; the Scripture hath said nothing of it, on either hand; nor can its *silence* be *argumentative here*, since we know, That all Mankind believes many things, of which there is no mention *there*: As that there are such places as *China*, and *America*, That the *Magnet attracts Iron*, and *directs* to the *North*, and that the *Sea* hath the *motion* of *Flux*, and *Reflux*, with ten thousand such other things discovered by *Experience*, of which there is not the least hint in the *Sacred* Volume: And are not these to be believed, till they can be proved from Scripture? This is ridiculously to abuse the *Holy Oracles*, and to *extend* them beyond their *proper* Business and Design.

To argue against this Supposal, as some do, by Queries, *What Men are in that other Earth? Whether fallen?* and *how saved?* is very childish and absurd. He that holds the Opinion, may confess his *ignorance* in all *these* things, without any

any *prejudice* to his *Hypothesis* of the *Moon's* being *habitable*; or the supposal of its being *actually inhabited*. For that may be, though no living Man can tell the *Nature* and *Condition* of those Creatures.

But for my part, I assert neither of these *Paradoxes*; only I have thought fit to speak thus briefly about them, that they may be left to the *freedom* of *Philosophical* Inquiry, for the Scripture is not concerned in such Queries. And yet besides this, which might suffice to vindicate the *Neoterick Philosophy*, from the charge of being *injurious* to the *Scripture* in such Instances, I add,

(3.) The *Free Experimental Philosophy* which I recommend, doth not affirm either of those so much dreaded *Propositions*: For neither of them hath sufficient evidence to warrant *peremptory* and *dogmatical* Assertions: And therefore, though perhaps some of those *Philosophers* may think, they have great degrees of probability, and are fit for *Philosophical* Consideration; Yet there are none, (that I know) who look on them as *Certainties*, and *positive* Truths: 'Tis contrary to the *Genius* of their way; to dogmatize for things of so great an uncertainty; or to be confident against them, where there wants full proof to assure the Negative. But whether the one be true, or the other, *Religion* and the *Scriptures* are not at all concerned.

Thus briefly of the *Slanders* that are affixt upon *Philosophy*, *viz.* of its *Tendency* to *Atheism*, and disparagement of the *Scriptures*. The other lesser ones are answered in the discussion of these.

BUT besides the *foul* and *slanderous* Imputations, fastned on *Philosophy*; there are some *vulgar plausibilities* pretended; the chief of which I shall now recite and answer; 'Tis said,

(I.) *There is too much curiosity in those Inquiries; and St.* Paul *desired to know nothing but Christ, and him crucified.*

To which I answer, That what is *blameable curiosity* in things not *worth* our *pains*, or *forbidden* our *scrutiny*, is *Duty*, and *laudable* endeavour in Matters that are *weighty*, and *permitted* to our *search*. So that no ill can justly be fastned upon *Philosophical Inquisitions* into *Nature*, on this account, till it be first proved, That a diligent observance of God's *Goodness* and *Wisdom* in his *Works*, in order to the *using* them to his *Glory*, and the *benefit* of the World, is either *prohibited* or *impertinent*.

There is indeed such a *depth* in Nature, that it is never like to be *throughly fathomed*; and such a *darkness* upon *some* of God's *Works*, that they will not in this World be *found out to Perfection*: But however, we are not kept off by any expressness of Prohibition; *Nature* is no *Holy Mount* that ought not to be *touched*; yea, we are commanded, To *search after* Wisdom, and particularly after *this*, when we are so frequently called upon to *celebrate* our Creator for his *Works*; and are encouraged by the success of many that have gone before; For *many shall go to and fro, and Science shall be increased.* So that our *Iniquiries* into *Nature* are not *forbidden*; and he that saith they are *frivolous*, and of *no use*, when the Art of the Omniscient is the *Object*, and his Glory, and the good of Men, the *end*, asperseth both the *Creator* and the *Creature*, and contradicts his duty to both.

As for the latter clause of the *Objection*, which urgeth that Speech of St. *Paul*, of his desiring to *know nothing but Christ and him crucified*, 1 Cor. 2. 2. I return to it, That he that shall duely consider the Discourse of the Apostle in the verse before,

before, and those that succeed, will perceive, That in this expression he only slights the *affected Eloquence* of the *Orators* and *Rhetoricians*; He spoke in *plainness* and *simplicity*, and not in those *inticing words* of *Man's Wisdom*, which he desired either not to *know* at all, or not in *comparison* with the *plain* Doctrines of the Gospel. Or, if any should take the words in the *largest* sense, then all sorts of *Humane* Learning, and all *Arts* and *Trades* are set at nought by the Apostle; And if *so*, the *meaning* can be no *more* than *this*, That he preferred the *Knowledge* of *Christ* before *these*; For 'tis ridiculous to think, that he *absolutely* slighted all other *Science*. The *Knowledge* of *Christ* is indeed the *chiefest* and most *valuable Wisdom*, but the *Knowledge* of the *Works* of *God* hath its place also, and ought not quite to be excluded and despised: Or, if *Philosophy* be to be slighted, by this Text, all *other Knowledge* whatsoever must be condemn'd by it.

But it will be urged,

(2.) *That there is a particular Caution given by the Apostle against Philosophy*, Col. 2. 8. *Beware lest any one spoil you through Philosophy.*

To this I have said elsewhere, That the Apostle *there* means either the *pretended* Knowledge of the *Gnosticks*, the *Genealogies* of the *Jews*, or the *disputing* Learning of the *Greeks*; and perhaps he might have a respect to *all* those sorts of Science falsly so call'd. That the *Disputing* Philosophy of the *Greeks* is concerned in the Caution, will appear very probable, if we consider, That much of it was built on *meer Notion*, that occasioned *division* into manifold *Sects*, which managed their Matters by *Sophistry* and *Disputations*, full of *nicity* and *mazes* of Wit; and aimed at *little*, but the *pride* of *mysterious* talk of things, that were not *really* understood. Such a *Philosophy* the Apostle might *justly condemn*, and all Wise Men *do the same*, because 'tis very injurious to *Religion*, *Real Knowledge*, and the *Peace* of Men. But what is this to that, which *modestly* inquires into the *Creatures* of God, as *they are*; That collects the *History* of his *Works*, raising *Observations* from them for the *Discovery* of *Causes*, and *Invention* of *Arts*, and *Helps* for the *benefit* of Mankind? What vanity; what pre-

judice

judice to *Religion* can be supposed in *this?* Is this, think we, *that Philosophy, that Wisdom of this World*, which the great Apostle censures and condemns? He is bold that saith it, *speaks a thing he knows not*, and might, if he pleased, know the contrary; Since the *Method* of *Philosophy* I vindicate, which proceeds by *Observation* and *Experiment* to *Works*, and *uses* of *Life*, was not, if at all, the *way* of *those* Times in which the Apostles liv'd, nor did it *begin* to shew it self in many Ages after; and therefore cannot be concerned in St. *Paul*'s *Caution* to his *Colossians*; nor in his smartness against *worldly Wisdom* elsewhere, for by that we are to understand the *Fetches* of *Policy*, the *Nicities* of *Wit*, and *Strains* of *Rhetorick* that were then engaged against the progress of the Gospel: But what is all *this* to the *Philosophy* of *God's Works*; which *illustrates* the *Divine Glory*, and *comments* upon his *Perfections*, and *promotes* the great *Design* of *Christianity*, which is *doing good*; and in its *proper* Nature *tends* to the *disposing* of Mens Minds to *Vertue* and *Religion?*

But (3.) *If Philosophy be so excellent an Instrument to Religion*; *it may be askt* (and the Question will have the force of an Objection) *why the Disciples and first Preachers of the Gospel were not instructed in it*; *They were plain illiterate Men, altogether unacquainted with those Sublimities*; *God chose the foolish things of this World, to confound the wise. So that it seems he did not shew this kind of Wisdom that respect which according to our Discourse is due unto it.*

I answer, That this choice the Divine Wisdom made of the Publishers of the *Glad Tydings* of *Salvation*, is no more prejudice or discredit to *Philosophy*, than it is to other sorts of *Learning*; and indeed 'tis none at all to any: For the special *Reasons* of God's making this Election seem such as these, *viz.* That his *Power* might more evidently appear in the wonderful propagation of the Religion of *Christ Jesus*, by such seemingly unqualified Instruments; That the World might not suspect it to be the contrivance of *Wit*, *Subtilty* and *Art*, when there was so much plainness and simplicity in its first Promoters: And perhaps too it was done in contempt of the vain and pretended *knowledge* of the *Jews* and *Greeks*, over which

which the plainneſs of the Goſpel was made glorioufly to triumph. To which I add this; It might be to ſhew, That God values *Simplicity* and *Integrity* above all *Natural Perfections*, how excellent ſoever. So that there being ſuch ſpecial Reaſons for the chuſing plain Men to ſet this grand Affair on foot in the World, it can be no diſparagement to the *Knowledge* of *Nature*, that it was not begun by Philoſophers. And to counter-argue this *Topick*, we may conſider, That

The *Patriarchs*, and Holy Men of Ancient Times that were moſt in the Divine Favour, were well inſtructed in the *Knowledge* of *God's Works*, and contributed to the good of Men by their uſeful Diſcoveries and Inventions. *Adam* was acquainted with the *Nature* of the *Creatures*; *Noah* a *Planter* of *Vineyards*; *Abraham* (as *Grotius* collects from Ancient Hiſtory) a great *Myſtes* in the *Knowledge* of the *Stars*. *Iſaac proſperous* in *Georgicks*. *Jacob* bleſſed in his *Philoſophical Stratagem* of the *ſpeckled* Rods. *Moſes* a great Man in all kinds of *Natural Knowledge*. *Bezaleel* and *Aholiab*, inſpired in *Architecture*. *Solomon* a *deep Naturaliſt*, and a *Compoſer* of a *voluminous Hiſtory* of *Plants*. *Daniel*, *Hananiah*, *Miſhael*, and *Azariah*, skilled in *all Learning* and *Wiſdom*; Ten times better, ſaith the Text, than the *Magicians* and *Aſtrologers* in *Nebuchadnezzar*'s Realm: And to accumulate no more Inſtances, the *Philoſophers* of the *Eaſt* made the *firſt* Addreſſes to the *Infant Saviour*.

CON-

THE AGREEMENT OF Reaſon and Religion.

Eſſay V.

Essay V.

THE AGREEMENT OF Reason and Religion.

THere is not any thing that I know, which hath done more mischief to *Religion*, than the disparaging of *Reason*, under pretence of respect and favour to it: For hereby the very Foundations of Christian Faith have been undermin'd, and the World prepared for Atheism. And if Reason must not be heard, the *Being* of a *God*, and the *Authority* of *Scripture*, can neither be proved nor defended; and so our Faith drops to the Ground like an House that hath no Foundation:

By the same way, those sickly Conceits, and Enthusiastick Dreams, and unsound Doctrines that have poyson'd our Air, and infatuated the Minds of Men, and expos'd Religion to the scorn of Infidels, and divided the Church, and disturbed the Peace of Mankind, and involv'd all the Nation in so much Blood, and so many Ruines; I say hereby, all these fatal Follies, that have been the occasions of so many Mischiefs, have been propagated and promoted. On which accounts I think I may affirm, with some confidence, That here is the Spring-Head of most of the Watters of Bitterness and Strife;

Strife; And here the Fountain of the Great Deeps of Atheiſm and Fanaticiſm, that are broken up upon us.

So that there cannot be a more ſeaſonable Service done either to Reaſon or Religion, than to endeavour the ſtopping up this Source of Miſchiefs, by repreſenting the Friendſhip and fair Agreement that is between them: For hereby *Religion* will be reſcued from the impious accuſation of its being *groundleſs* and *imaginary:* And *Reaſon* alſo defended againſt the unjuſt Charge of its being *prophane* and *irreligious:* This we have heard often from indiſcreet and hot Men; For, having entertain'd vain and unreaſonable Doctrines, which they had made an Intereſt, and the Badges of a Party, and perceiving that their Darling Opinions could not ſtand, if Reaſon, their Enemy, were not diſcredited; They ſet up loud cries againſt it, as the grand Adverſary of Free Grace and Faith; and zealouſly endeavour'd to run it down under the miſapplyed names of *Vain Philoſophy*, *Carnal Reaſoning*, and the *Wiſdom* of this *World*; and what have been the Effects of this proceeding, we have ſeen and felt.

So that, in my Judgment, it is the great duty of all ſober and reaſonable Men, to riſe up (as they can) againſt this Spirit of Folly and Infatuation: And ſomething I ſhall attempt now, by ſhewing, That **Reaſon** is very ſerviceable to *Religion*; and **Religion** very friendly to *Reaſon*. In order to which, I muſt

(1.) State, what I *mean* by *Religion?* and what by *Reaſon?* For there is nothing in any Matter of Enquiry or Debate that can be diſcover'd, or determin'd, till the Terms of the Queſtion are explain'd, and the Notions ſettled. The want of this hath been the occaſion of a great part of thoſe Confuſions we find in Diſputes; and particularly moſt of the Clamours that have been raiſed againſt Reaſon in the Affairs of Religion have ſprung from it. For while ungrounded Opinions, and unreaſonable Practiſes are often call'd Religion, on the one hand; and vain Imaginations, and falſe Conſequences are as frequently ſtiled Reaſon, on the other; 'Tis no wonder that ſuch a Religion diſclaims the uſe of Reaſon; or that ſuch Reaſon is oppoſite to Religion. Therefore, in order to my ſhewing the Agreement between True Religion, and

and the Genuine Reason, I shall, with all the clea n ess that I can, represent the just meaning of the one, and of the other.

For **Religion** first; It is taken either strictly for the Worship of God; or in a more comprehensive sense, for the *sum* of those *Duties* we owe to Him: And this takes in the other, and agrees with the Notation of the Name, which imports *Binding*, and implies *Duty*. Now all Duty is comprised under these two, *viz.* *Worship* and *Vertue:* Worship comprehends all Duties that immediately relate to God, as the Object of them; Vertue, all those that respect our Neighbour and our Selves. So that Religion primarily, and mainly consists in *Worship* and *Vertue*.

But Duty cannot be performed without *Knowledge*, and *some Principles* there must be to direct the Practice: and those that discover the Duties, and guide Men in the performance of them, are call'd *Principles* of *Religion*.

These are of two sorts;

Some (1.) Fundamental and Essential.
Others (2.) Accessory and Assisting.

Fundamental is a Metaphor taken from the Foundation of a Building, upon which the Fabrick is erected, and without which it cannot stand. So that Fundamental Principles are such, as are *presupposed* to the *Duties* of Religion (one, or more) and *such*, as are absolutely necessary to the doing of them: of this sort I shall mention three, *viz.*

(1.) *The Being of God*, and the *perfections of his Nature*. The belief of these is necessary to all the parts of Religion. He that comes unto God, in any way of Worship, or Address, *must know that he is*, and in some measure, *what:* Namely, he must know, and own the commonly acknowledg'd Attributes of his Being.

2. A second necessary Principle is, The *Providence of God*, *viz.* the Knowledge, That he made us, and not we our selves; that he preserves us, and daily provides for us the good things we enjoy: This is necessary to the Duties of

Prayer,

Prayer, *Praise*, and *Adoration*: And if there be no Providence; Prayer, and Thanksgiving, and other Acts of Worship, are in vain.

3. A third Fundamental, is, *Moral, Good, and Evil.* Without this there can be no *confession* of Sin; no respect to *Charity*, *Humility*, *Justice*, *Purity*, or the rest that we call Vertues.

These will be confes'd to be *Fundamentals* of Religion: And I shall not dispute how many more may be admitted into the number. These we are sure are such, in the strictest sense, for all Religion *supposeth*, and stands upon them: And they have been acknowledg'd by Mankind in all Ages and Places of the World.

But besides these, there are other Principles of Religion, which are not in the same degree of *absolute* necessity with the former, but yet are highly serviceable, by way of incouragement and assistance. I reckon four, *viz.*

(1,) *That God will pardon us if we repent.* (2.) *That he will assist us, if we endeavour.* (3.) *That he will accept of Services that are imperfect, if they are sincere.* (4.) *That he will righteously reward and punish in another World.*

These contain the Matter and Substance of the Gospel; more clearly and explicitly reveal'd to the Christian Church; but in some measure owned also by the Gentiles. So that I may reckon, that the *Principles* I have mention'd, are the *sum* of the *Religion of Mankind*; I mean, as to the Doctrinal Part of it: and the *Duties* recited before, are the Substance of the *Practical*, which primarily and most essentially is Religion. And Christianity takes in all these Duties, and all these Principles; advancing the Duties to higher degrees of Excellency and Perfection; incouraging them by new Motives and Assistances; and superadding two other Instances, *Baptism*, and the *Lord's Supper*. And for the Principles, it confirms those of Natural Religion; it explains them further, and discovers some few new ones: And all these, both of the former and the latter sort, are contain'd in the *Creed*. Here are all the *Fundamentals* of Religion, and the main *Assisting Principles* also.

And

And though our Church require our assent to *more* Propositions; yet those are only *Articles* of *Communion*, not Doctrines absolutely *necessary* to *Salvation*. And if we go beyond the *Creed* for the Essentials of Faith; who can tell where we shall stop?

The sum is, Religion *primarily* is *Duty*; And Duty is All that which God hath commanded to be done by his Word, or our Reasons; and we have the substance of these in the **Commandments**: Religion also, in a *secondary* sense, consists in some Principles relating to the Worship of God, and of his Son, in the ways of devout and vertuous living; and these are comprised in that Summary of Belief, called the **Apostles Creed**.

This I take to be Religion; and this Religion I shall prove to be reasonable: But I cannot undertake for all the Opinions some Men are pleased to call *Orthodox*; nor for all those that by many private Persons, and some Churches, are accounted essential Articles of Faith and Salvation. Thus I have stated what I mean by Religion.

The OTHER thing to be determined, and fixt, is, the proper Notion of **Reason**.

For this we may consider, that Reason is sometimes taken for *Reason* in the *Faculty*, which is the *Understanding*; and at other times, for *Reason* in the *Object*, which consists in those *Principles* and *Conclusions*, by which the Understanding is informed. This latter is meant in the Dispute concerning the Agreement or Disagreement of Reason and Religion. And Reason in this sense, is the same with *natural Truth*, which I said is made up of Principles and Conclusions. By the *Principles* of Reason we are not to understand the Grounds of any Man's *Philosophy*; nor the Critical Rules of *Syllogism*; but those imbred *Fundamental Notices*, that God hath implanted in our Souls; such as arise not from external Objects, nor particular Humours or Imaginations, but are immediately lodged in our Minds; independent upon other Principles or Deductions; commanding a sudden assent; and acknowledged by all sober Mankind.

Of this ſort are theſe,

That God is a Being of all Perfection.

That nothing hath no Attributes.

That a Thing cannot be, and not be.

That the Whole is greater than any of its Parts.

Theſe, and ſuch-like, are unto *Us*, what Inſtincts are to other Creatures. And theſe I call the *Principles* of *Reaſon*.

The *Concluſions* are thoſe other Notices that are inferred *rightly from* theſe; and *by their* help, from the Obſervations of *Senſe*; And the *remoteſt* of them that can be conceived, if it be *duly inferred* from the *Principles* of *Reaſon*, or rightly circumſtantiated *Senſe*, is as well to be reckoned a Part and Branch of Reaſon, as the more *immediate* Concluſions, that are Principles in reſpect of thoſe diſtant Truths. And thus I have given an account alſo of the proper Notion, and *Nature* of *Reaſon*.

I AM to ſhew next, (2.) **That Religion is reaſonable**; and this implies two things, *viz. That Reaſon is a Friend to Religion*; and that *Religion is ſo to Reaſon.*

I begin with the FIRST: and here I might eaſily ſhew the great congruity that there is between that Light, and thoſe Laws, that God hath placed in our Souls; and the *Duties* of *Religion*, that by the expreſſneſs of his written Word he requires from us; and demonſtrate that Reaſon teacheth All thoſe, excepting only the two Poſitives, *Baptiſm* and the *Holy Euchariſt*. But there is not ſo much need of turning my Diſcourſe that way; and therefore I ſhall confine it to the *Principles* of Religion, which are called **Faith**, and prove that Reaſon exceedingly befriends theſe.

It doth this (I.) By **proving** *ſome of thoſe Principles*; And (II.) By **defending all**. For the clearing both, let us conſider, That the *Principles* of *Religion* are of two ſorts.

Either (1.) Such as are *preſuppoſed* to Faith; or ſuch as (2.) are *formal Articles* of it. Of the firſt are; The *Being of a God*; and the *Authority* of the *Scripture*. And of the ſecond, *ſuch* as are *expreſly declared* by *Divine Teſtimony*; as the

the *Attributes* of God; the *Incarnation* of his *Son*, and such like.

(I.) For the former, they are proved by Reason; and by Reason *only*. The others we shall consider after.

(1.) That the *Being* of a *God*, the Foundation of all, is *proved* by *Reason*, the Apostle acknowledgeth, when he saith, That what was *to be known of God*, *was manifest*; and to the *Heathen*, Rom. 1. 19. and he adds, *vers.* 20. That *the invisible Things from the Creation of the World*, *are clearly seen*, *being understood by the Things that are made*. And the Royal Psalmist speaks to the like purpose, *Psal.* 19. *The Heavens declare the Glory of God*, *and the Firmament sheweth his handy-Works*. And again, *Psal.* 148. 3. *Praise him Sun and Moon*, *praise him ye Stars and Light*; which intimates, that these Works of his afford Matter to our Reasons for Religious Acknowledgments. And Reason proves the Existence of God, from the *beauty*, and *order*, and *ends*, and *usefulness* of the Creatures; for *these* are demonstrative Arguments of the Being of a *wise* and *omnipotent* Mind, that hath framed all things so *regularly* and *exactly*; and *that Mind* is *God*. This Article then, Reason proves, which was the first Branch of the Particular; and I add, that it is Reason *only* that can do it; which was the other. For there are but three things from whence the Existence of any Being can be concluded, *viz.* *Sense*, *Revelation*, or *Reason*.

Sense hath no more to do here, but to present Matter for our Reasons to work on; and *Revelation supposeth* the Being of a God, and cannot prove it; for we can have no security that the Revelation is true, till we are assured it is from God, or from some commissioned by him. The *knowledge* of his Being therefore, must *precede* our Faith in Revelation; and so cannot be deduced from it. So that *only* Reason is left to assure us here. And thus Reason lays the very Corner Stone of Religion.

The next to this, is the other Principle mentioned, *viz.*

(2.) The *Divine Authority* of *Scripture*: This also is to be *proved* by Reason, and *only* by it. The great Argument for the truth of Scripture, is the Testimony of the Spirit in the *Miracles* wrought by Christ and his Apostles: Our Saviour

himself useth this Argument to gain credit to his Doctrines, *Believe me for the Work's sake*; *The Works that I do bear testimony of me*; *and if I had not done among them the Works that no other Man did, they had had no sin*, John 15. 24. And the Apostles continually urge that great Miracle, the *Resurrection* of Christ from the dead, for the conviction both of the Jews and Gentiles, That he was the Son of God, and his Doctrines *true*. Now Miracles are an Argument to our *Reasons*, and we reason from them thus: Miracles are God's Seal, and they are wrought by his Power, and he is true and good, and would not lend these to Impostors to cheat and abuse Mankind: Therefore whoever works real Miracles for the confirmation of any Doctrine, it is to be believed, that he is taught of God, and commissioned to teach us: And that Christ and his Apostles did those things which are recorded of them, is Matter of *Testimony*; and Reason clears the validity of *this*, by the aggregation of multitudes of Circumstances, which shew, That the first Relators *could not* be *deceived themselves*, and *would not deceive us*; nor indeed *could* in the main Matters, if they had designed it. And the certainty of the conveyance of those things to us is evinced also by numerous convictive Reasons: So that the matter of Fact is secure; and that such Doctrines were taught, as are ascribed to those Divine Persons; and those Persons inspired that penned them, are proved the same way: And so it follows from the whole, that the Gospel is the Word of God; and the Old Testament is confirmed by *that*. Thus Reason proves the Divine Authority of Scripture; and those other Arguments that use to be produced for it, from its *Stile*, and its *influence* upon the Souls of Men; from the *excellency* of its Design, and the *Providence of God* in preserving it; are of the same sort, though not of the same strength. Reason then proves the Scriptures, and *this only*; for that they are from God, is not known *immediately* by *Sense*; and there is no distinct *Revelation* that is certain and infallible to assure us of it; and so *Reason only* remains to demonstrate the Article.

These two great Truths, *The Existence of God*, and *Authority of Scripture*, are the first in our Religion; and they are *Conclusions* of Reason, as well as *Foundations* of Faith. And

thus

thus briefly of those Principles of Religion that are *presupposed* unto it; we have seen how Reason serves for the Demonstration of them.

(II.) I COME now to the *other* sort of *Principles*, *viz.* those that are *formally so*; They are of two sorts, mixt and pure: The *mixt* are those that are discovered by Reason, and declared by Revelation also; and so are Principles both of Reason, and Faith: Of this kind are the *Attributes* of God; *Moral good*, and *evil*; and the *immortality* of Humane *Souls*. The Principles of *pure Faith*, are such, as are known *only* by Divine Testimony, as the *Miraculous Conception*, the *Incarnation*, and the *Trinity*.

The *first* sort *Reason proves*, as well as Scripture; this I shew briefly in the Instances mention'd.

(1.) That the *Divine Attributes* are revealed in the Holy Oracles, is very clear; and as plain it is that they are deduced from Reason; For 'tis a general Principle through the World, *That God is a Being absolutely perfect*; And hence Reason concludes all the *particular* Attributes of his Nature; since *Wisdom*, *Goodness*, *Power*, and the rest, are *Perfections*, and imply nothing of imperfection or defect; and therefore ought to be ascribed to the infinitely perfect Being.

(2.) That there is *moral Good*, and *Evil*, is discoverable by Reason, as well as Scripture. For these are Reason's Maxims; *That every Thing is made for an end*; and *every Thing is directed to its end by certain Rules*: *These Rules*, in Creatures of understanding and choice, *are Laws*; and the transgressing *these*, is *Vice* and *Sin*.

(3.) The *Immortality* of our Souls is plain in Scripture; and *Reason* proves it, by shewing the *spirituality* of our Natures; and *that* it doth, from the nature of *Sense*; and our *perception* of *Spiritual* Beings; of *Universals*, and of *Logical*, *Metaphysical*, and *Mathematical* Notions; From our *compounding* Propositions, and drawing Conclusions from them; From the *vastness* and *quickness* of our *Imaginations*, and *liberty* of our *Wills*; all which are beyond the Powers of *Matter*, and therefore argue a *Being* that is *Spiritual*, and consequent-

ly

ly *immortal* ; which Inference, the Philosophy of Spirits proves.

Also, the *Moral* Arguments of Reason from the *goodness* of *God*, and his *Justice* in distributing Rewards and Punishments ; the nature of *Vertue*, and tendencies of Religious *Appetites*, conclude, I think, very hopefully, That there is a *Life* after *this*. Thus in short of the Principles I called *mixt*, which Reason demonstrates.

BUT for the others, *viz.* (2.) Those of **pure Revelation**, Reason cannot prove them *immediately* ; nor is it to be expected that it should : For they are *Matters* of *Testimony* ; and we are no more to look for *immediate* proof from Reason of those things, than we are to expect, that abstracted Reason should demonstrate, That there is such a place as *China* ; or, that there was such a Man as *Julius Cæsar* : All that it can do here, is to assert and make good the credibility, and truth of the Testimonies that relate such Matters : and *that* it doth in the present case, proving the Authority of Scripture ; and thereby, in a *remoter* way, it demonstrates all the *Mysteries* of *Faith*, which the Divine Oracles *immediately* discover. And it is no more disparagement to our Reasons, that they cannot evince those Sacred Articles by their own unaided force, than it is a disgrace unto them, that they cannot know that there are such things as Colours, without the help of our Eyes ; or that there are Sounds, without the faculty of Hearing. And if Reason must be called blind upon this account, because it cannot know of it self such things as belong to Testimony to discover ; the best Eyes in the World may be so accounted, because they cannot see Sounds ; and the best Palate dull and dead, because it cannot taste the Sun-Beams.

But though I have said, That *Reason* cannot of it self *immediately* prove the Truths of *pure* Revelation ; Yet (1.) it demonstrates the *Divine* Authority of the *Testimony* that declares them ; and *that* way proves even *these* Articles. If this be not enough,

I add the second Assertion, (2.) That *Reason* **defends** *all* *the*

the Mysteries of Faith and Religion: And for this, I must desire it be noted, That there are two ways whereby any thing may be *defended, viz.* Either (1.) by shewing the *manner* how the thing is; Or, if that cannot be done, by shewing (2.) That it *ought* to be *believed*, though the *manner* of it be not *known:* For instance, if any one denies, That all sorts of Creatures were in the *Ark*, under pretence, that it is impossible they should be contained within such a space; He that can shew *how* this might be, by a distinct enumeration of the kinds of Animals, with due allowance for the unknown Species, and a computation of the particular capacity of the Ark; he defends the Sacred History the first way: But if another denies the *conversion* of *Aaron's Rod* into a Serpent, upon the same account, of the *unconceivableness* of the *manner* how it was done; this cannot indeed be defended the former way: But then it *may*, by representing that the Power of God is infinite; and can easily do what we cannot comprehend: and that we ought to believe upon the credit of the *Testimony*, (that being well proved to us) though the *manner* of this miraculous performance, and such others as it relates, be *unknown.* And as it is in this last case, so it is in all the Mysteries of Faith and Religion; Reason cannot defend them indeed the *first* way: But it doth the *second*, by shewing, That the Divine Nature is infinite, and our Conceptions very shallow and finite; that 'tis therefore very unreasonable in us to indeavour to pry into the Secrets of his Being, and Actions; and to think that we can measure and comprehend them: That we know not the Essence and Ways of acting of the most ordinary and obvious Things of Nature, and therefore must not expect throughly to understand the deeper Things of God, That God hath *revealed* those Holy Mysteries unto us; and that 'tis the highest *reason* in the World to believe, That *what he saith is true, though we do not know how these things are.* These are all Considerations of Reason, and by the proposal of them, it sufficiently defends all the Mysteries that can be proved to be contained in the Sacred Volume, and shews that they ought to be received by us, though they cannot be comprehended.

Thus

Thus if any one ſhould ask me, How the *Divine Nature* is *united* to the *Humane ?* and declare himſelf unwilling to believe the Article till he could be ſatisfied, *how* ; My anſwer would be in ſhort, That I *cannot tell* ; and yet I believe it *is ſo* ; and he ought to believe the *ſame*, upon the credit of the Teſtimony, though we are both *ignorant* of the *Manner*. In order to which I would ſuggeſt, that we believe innumerable things upon the *evidence* of our *Senſes*, whoſe Nature and Properties we do not know : How the *parts* of *Matter cohere* ; and how the *Soul* is *united* to the *Body*, are Queſtions we cannot anſwer ; and yet that *ſuch* things *are*, we do not doubt : And why, ſaith *Reaſon*, ſhould we not believe God's *Revelation* of things we *cannot comprehend* ; as well as we do our *Senſes* about Matters as little underſtood by us ? 'Tis no doubt reaſonable that we ſhould, and by proving *it is ſo*, Reaſon *defends* all the Propoſitions of *Faith* and *Religion*. And when ſome of theſe are ſaid to be *above* Reaſon, no more is meant, Than that Reaſon cannot conceive *how* thoſe things are ; and in *that* ſenſe many of the Affairs of *Nature* are above it too.

Thus I have ſhewn how ſerviceable Reaſon is to Religion. I am next to prove,

That (II.) **Religion befriends it** : And here I offer ſome Teſtimonies from the Holy Oracles to make that good ; and in them we ſhall ſee, how *God* himſelf, and *Chriſt*, and his *Apoſtles*, do own and acknowledge *Reaſon*.

I conſider (1.) that *God*, Iſa. 1. 18. calls the rebellious *Iſraelites* to *reaſon* with him ; *Come now, and let us reaſon together, ſaith the Lord* ; and by Reaſon he convinceth the People of the vanity of Idols, *Iſa*. 44. 9. And he expoſtulates with their *Reaſons*, Ezek. 18. 31. *Why will ye die, O ye Houſe of Iſrael ?* And *Mich*. 6. 3. *O my People, what have I done unto thee ? And wherein have I wearied thee ? Teſtifie againſt me.* He appeals unto their *Reaſons*, to judge of his proceedings. Iſa. 5. 3. *And now, O inhabitants of* Jeruſalem, and *Men of* Judah, *judge I pray you between me and my vineyard ; are not my ways equal ?* and *are not your ways unequal ?* In this he inti-

intimates the competency of their Reasons, to judge of the *equity* of *his* Ways, and the *iniquity* of *their own*.

And (2.) *our Saviour* commands the Disciples of the Pharisees, to *give unto Cæsar the things that are Cæsar's*, and *to God the things that are God's*; implying the ability of their Reasons to distinguish between the things that belonged to *God*, and those that appertained to *Cæsar*. And he in divers places argues from the Principles and Topicks of Reason: From that which we call, *à majori ad minus*, from the *greater* to the *less*, *John* 13. 14. He shews it to be the duty of his Disciples, to serve their Brethren in the meanest Offices, and to wash one another's feet, because he had washed theirs, *Vers.* 14. inforcing it by this consideration of Reason; *For the Servant is not greater than his Lord*, Vers. 26. and useth the same, *John* 15. 20. to shew, that they must expect Persecution, because *He*, their Lord, was persecuted. And *Luke* 12. 23. He endeavours to take them off from carking care and sollicitude about Meat and Raiment, by this consideration from Reason, That the *Life is more than Meat, and the Body than Raiment*, intimating that God having given them the *greater*, there was no doubt but he would bestow the *less*, which was necessary for the preservation of it. To these Instances, I add some few from the Topick, *à minori ad majus*, from the *less* to the *greater*, in the arguings of our Saviour. Thus *Mat.* 7. 11. *If ye being evil know how to give good Gifts to your Children, how much more shall your Father which is in Heaven give good Things to those that ask him?* The ground of the Consequence is this Principle of Reason, *That God is more benign and gracious, than the tenderest and most affectionate of our earthly Parents.* So *Luke* 12. 24. He argues, that God will provide for *Us*, because he doth for the *Ravens*, since we are *better* than *they*; *How much more are ye better than the Fowls?* Which arguing supposeth this Principle of Reason, that that Wisdom & Goodness, which are indulgent to the *viler* Creatures, will not neglect the more *excellent*. He proceeds further in the same Argument, by the consideration of God's clothing the Lillies, and makes the like inference from it, *Vers.* 28. *If God so clothe the Grass, how much more will he clothe you?* And *Mat.* 12. He reasons that it was lawful for him to heal on the Sab-

bath-day, from the consideration of the general Mercy that is due even to brute Creatures; *What Man shall there be among you that shall have one Sheep, and if it fall into a Pit on the Sabbath-day, will he not lay hold of it to lift it out? How much more then is a Man better than a Sheep?* Vers. 12. Thus our Saviour used Arguments of Reason.

And (3.) the *Apostles* did so very frequently. S. *Paul* disproves *Idolatry* this way, *Acts* 17. 29. *Forasmuch then as we are the Off-spring of God, we ought not to think, that the God-head is like unto Gold, or Silver, or Stone graven by Art.* And the same Apostle proves the *Resurrection* of the Dead by the mention of seven gross Absurdities that wonld follow the denyal of it, 1 *Cor.* 1. 15. viz. *If the Dead rise not*, Then 1. *Christ is not risen*; And then 2. *our Preaching is vain*, and we *false Apostles*, And if so, 3. *your Faith is vain*; And then 4. you are not *justified*, but are in *your sins*; And hence it will follow 5. That those that are departed in the same Faith are *perished*; And then 6. Faith in Christ profits *only in this Life*; And if so, 7. we *are of all Men the most miserable*, Because we suffer all things for this Faith; From *ver.* 14. to *ver.* 19. And the whole Chapter contains *Philosophical Reasoning*, either to prove or illustrate the Resurrection; or to shew the difference of glorified Bodies from these. And S. *Peter*, in his second *Epistle*, Chap. 2. shews, that sinful Men must expect to be punished, because God *spared not the Angels that fell.* Instances of this would be endless; these may suffice. And thus of the Second thing also, which I proposed to make good, *viz. That Religion is friendly to Reason*; and that appears, in that God himself, our Saviour, and his Apostles own it; and use Arguments from it, even in Affairs of Faith and Religion.

But divers *Objections* are urged against the use of Reason in Religion, from *Scripture*, and other *Considerations*: The chief of them I shall consider briefly.

From *Scripture* 'tis alledged, (1.) That God will *destroy* the *Wisdom of the Wise*, 1 Cor. 1. 19. And *the World by Wisdom knew not God*, vers. 21. And *not many wise Men after the flesh are called*, vers. 26. And God *chose the foolish things of*

this World to confound the wise, vers. 27. By which expressions of *wisdom* and *wise*, 'tis presumed that *Humane Reason*, and *Rational* Men, are meant. But these Interpreters mistake the Matter much, and as they are wont to do, put mere *Arbitrary Interpretations* upon *Scripture*; For by *Wisdom* here, there is no cause to understand the *Reason* of Men; but rather the *Traditions* of the *Jews*; the *Philosophy* of the Disputing *Greeks*; and the *worldly Policy* of the *Romans*, who were the Ἄρχοντες τοῦ αἰῶνος, The *Rulers* of that *World*: That the *Jewish* Learning in their Law is meant, the Apostle intimates, when he asks in a way of Challenge, *vers.* 20. *Where is the Scribe?* And the word Γραμματεὺς, signifies one that was skill'd in their Laws and Customs. And that the *Philosophy* of the *Greeks* is to be understood likewise, we have ground to believe from the other Question in the same Verse; *Where is the Disputer of this World?* Which, though some refer to the Doctors among the *Jews* also, yet, I humbly think, it may more properly be understood of the Philosophers among the *Grecians*; For the Apostle writes to *Greeks*, and their Philosophy was notoriously *contentious*. And lastly, That the *worldly Policies* of the *Romans* are included in this Wisdom of this World, which the Apostle vilifies, there is cause to think from the sixth Verse of the second Chapter, where he saith, *He spake not in the Wisdom of the Princes of this World*; And 'tis well known that *Policy* was their *most valued* Wisdom; *Tu regere imperio* —— To govern the Nations, and promote the grandeur of their Empire, was the great design and study of those Princes of this World. Now all *these* the Apostle sets at nought in the beginning of this Epistle; Because they were very opposite to the simplicity, and holiness, self-denial, and meekness of the Gospel. But what is this to the disadvantage of Reason; to which those sorts of Wisdom are as contrary, as they are to Religion? And by this I am enabled,

(2.) To meet another Objection urged from 1 *Cor.* 2. 14. *But the natural Man receiveth not the things of the Spirit of God, for they are foolishness unto him; neither can he know them, because they are spiritually discerned.* Hence the Enthusiast argues the Universal Inability of Reason in things of Religion;

and its Antipathy to them: Whereas I can apprehend *no more* to be meant by the words, than *this*, *viz.* That *ſuch* kind of *natural* Men as thoſe *Scribes*, and *Diſputers*, and *Politicians*, having their Minds depraved, and prepoſſeſſed with their *own* Wiſdom, were indiſpoſed to receive *this*, that was ſo *contrary* unto it. And they could not know thoſe things of God, becauſe they were *Spiritual*, and ſo would require a Mind that was of a *pure* and *ſpiritual* frame, *viz.* free from that earthly Wiſdom of all ſorts, which counts thoſe things *fooliſhneſs*; and which by God is counted ſo it ſelf; 1 *Cor.* 3. 19. which place

(3.) Is uſed as another Scripture againſt Reaſon. *The Wiſdom of this World is fooliſhneſs with God:* But it can ſignifie nothing to that purpoſe, to one that underſtands and conſiders the Apoſtle's meaning. What is meant by the *Wiſdom* of this *World* here, I have declared already; And by the former part of my Diſcourſe it appears, that whatever is to be underſtood by it, our Reaſon cannot; ſince that either *proves*, or *defends* all the Articles of Religion.

(4.) And when the ſame Apoſtle elſewhere, *viz.* 2 *Cor.* 1. 12. ſaith, That *they had not their Converſation in fleſhly Wiſdom*; we cannot think he meant Humane Reaſon by that; for Reaſon directs us to live in ſimplicity, and godly ſincerity, which he oppoſeth to a life in fleſhly Wiſdom. By this therefore, no doubt, he means the *Reaſon* of our *Appetites*, and *Paſſions*, which is but *Senſe* and *Imagination*, (for theſe blind Guides are the Directors of the Wicked) but not the *Reaſon* of our *Minds*, which is one of thoſe Lights that illuminate the Conſciences of good Men, and help to guide their Actions. And whereas 'tis objected,

(5.) From *Col.* 2. 8. *Beware leſt any ſpoil you through Philoſophy.* I Anſwer, There is nothing can be made of that neither, for the diſgrace of Reaſon; for the Philoſophy the Apoſtle cautions againſt, is the *ſame* which he warns *Timothy* of, 1 *Tim.* 1. 4. *Neither give heed to Fables and endleſs Genealogies that miniſter Queſtions*; calling theſe, *prophane*, and *vain* bablings, and *oppoſitions* of *Science*, *falſly ſo called*, 1 Tim. 6. 20. By all which, Learned Interpreters underſtand the pretended Knowledge, of which the *Gnoſticks* boaſted,

which

which consisted in the *fabulous Pedigrees* of the *Gods* under the name of *Æones*; and it may be the *Genealogies* of which the *Jews* were so fond; and the *disputing Philosophy* among the *Greeks*, which was properly, *Science falsly so called*, and did minister Questions, and endless Strife; I say, 'tis very probable *these* might be comprehended also: But *Reason* is no otherwise concerned in all this, but as condemning, and reproving these dangerous Follies.

THUS we see the Pretensions from **Scripture** against Reason are vain. But there are **other Considerations** by which it useth to be impugned, as,

(1.) OUR Reason is **corrupted**, and *therefore is not fit to meddle in Spiritual Matters.*

To this I say, That Reason, as it is taken for the Faculty of Understanding, is very much weakened and impaired; It sees but little, and that very dully, *through a Glass darkly*, as the Apostle saith, 1 *Cor.* 13. And it is very liable to be misled by our Senses, and Affections, and Interests, and Imaginations; so that we many times mingle Errors, and false Conceits, with the genuine Dictates of our Minds, and appeal to them, as the Principles of Truth and Reason, when they are but the vain Images of our Phansies, or the false Conclusions of Ignorance and Mistake. If this be meant by the corruption of Reason, I grant it; and all that can be inferred from it will be; *That we ought not to be too bold and peremptory in defining speculative, and difficult matters; especially not those that relate to Religion, nor to set our Reasonings against the Doctrines of Faith and Revelation.* But this is nothing to the disreputation of Reason in the Object, *viz.* Those Principles of Truth which are written upon our Souls; or any Conclusions that are deduced from them: These are the same that they ever were, though we discern them not so clearly as the Innocent State did: They may be mistaken, but cannot be corrupted. And as our Understandings, by reason of their weakness, and liableness to Error, may take falshoods for some of those; or infer falsly from those that are truly such; so

ſo we know, they do the ſame by the Scriptures themſelves, *viz.* they very often miſ-interpret, and very often draw perverſe concluſions from them; And yet we ſay not, That the Word of God is corrupted, nor is the uſe of Scripture decryed becauſe of thoſe abuſes. But here advantage will be taken to object again,

(2.) *That ſince our natural Underſtandings are ſo weak, and ſo liable to miſtake, they ought not to be uſed in the Affairs of Religion; and 'twill ſignifie little to us that there are certain Principles of eternal Reaſon, if we either perceive them not, or cannot uſe them.*

To this I Anſwer, That if on this account we muſt renounce the uſe of our natural Underſtandings, Scripture will be uſeleſs to us alſo; For how can we know the meaning of the words that expreſs God's Mind unto us? How can we compare one Scripture with another? How can we draw any Conſequence from it? How apply general Propoſitions to our own *particular* Caſes? How tell what is to be taken in the Letter; what in the Myſtery, what plainly; what in a Figure? What according to ſtrict and rigorous Truth? What by way of accommodation to our Apprehenſions? I ſay, without the exrciſe of our Underſtandings, uſing the Principles of Reaſon, none of theſe can be done, and without them Scripture will ſignifie either nothing at all, or very little to us. And what can Religion get this way? This Inference therefore is abſurd and impious. All that can juſtly be concluded from the weakneſs of our Underſtandings, will be what I intimated before, that we ought to uſe them with modeſty and caution; not that we ſhould renounce them. He is a Mad-man, who, becauſe his eyes are dim, will therefore put them out.

But it may be objected further,

(3.) *That which Men call Reaſon is infinitely various, and that is reaſonable to one, which is very irrational to another; Therefore Reaſon is not to be heard.* And, I ſay, Interpretations of Scripture are infinitely various, and one calls that Scriptural, which another calls Heretical; Shall we conclude There-

therefore, That *Scripture is not to be heard?* Reason in it self is the same all the World over, though Mens apprehensions of it are various, as the Light of the Sun is one, though Colours are infinite: And where this is, it ought not to be denied, because follies and falshoods pretend relation to it; or call themselves by that name. If so, farewel Religion too.

But (4.) *'Tis Socinianism to plead for Reason in the Affairs of Faith and Religion.*

And I Answer, 'Tis gross Phanaticism to plead against it. This Name is properly applicable to the Enemies of Reason; But the other of *Socinianism* is groundlesly applyed to those that undertake for it; and it absurdly supposeth that *Socinians* are the only rational Men; when-as divers of their Doctrines, such as, The *Sleep*, and *natural mortality of the Soul*, and *utter extinction*, and *annihilation of the Wicked after the Day of Judgment*, are very obnoxious to Philosophy and Reason. And the *Socinians* can never be confuted in their other Opinions, without using Reason to maintain the Sense and Interpretation of those Scriptures that are alledged against them. 'Tis an easie thing, we know, to give an ugly Name to any thing we dislike; and by this way the most excellent and sacred Things have been made contemptible and vile. I wish such hasty Censurers would consider before they call Names; *That no Truth is the worse, because rash Ignorance hath thrown dirt upon it.* I need say no more to these frivolous Objections. Those that alledge *Atheism*, and tendency to Infidelity against the reverence and use of Reason, are disproved by my whole Discourse: Which shews that the Enemies of Reason most usually serve the ends of the *Infidel*, and the *Atheist*; when as a due use of it destroys the Pretensions of both.

NOw from the foregoing brief Diſcourſe I ſhall deduce ſome *Corollaries*, that may be of uſe for the better underſtanding of the whole Matter.

1. *Reaſon is certain and infallible*; This follows from the ſtate I gave of the Nature and Notion of Reaſon in the beginning. It conſiſts in Firſt Principles, and the Concluſions that are raiſed from them, and the Obſervations of Senſe. Now firſt Principles are certain, or nothing can be ſo; for every poſſible Concluſion muſt be drawn from thoſe, or by their help; and every Article of Faith ſuppoſeth them: And for the Propoſitions that ariſe from thoſe certain Principles, they are certain likewiſe; For nothing can follow from Truth, but Truth in the longeſt Series of Deduction. If Error creep in, there is ill conſequence in the caſe. And the ſort of Concluſions that ariſe from the Obſervations of Senſe, if the Senſe be rightly circumſtantiated, and the Inference rightly made, are certain alſo. For if our Senſes in all their due Circumſtances deceive us, All is a deluſion, and we are ſure of nothing: But we know, that firſt Principles are certain, and that our Senſes do not deceive us, becauſe God, that beſtowed them upon us, is True and Good: and we are as much aſſured, that whatever we duly conclude from either of them, is certain; becauſe whatever is drawn from any Principle, was virtually contained in it.

(2.) I infer, *That Reaſon is*, in a ſenſe, *the Word of God*, *viz.* That which he hath written upon our Minds and Hearts; as Scripture is that which is written in a Book. The former is the Word, whereby he hath ſpoken to all Mankind; the latter is that whereby he hath declared his Will to the Church, and his peculiar People. Reaſon is that *Candle of the Lord*, of which *Solomon* ſpeaks, *Prov.* 20. 27. *That Light*, whereby *Chriſt hath enlightned every one that cometh into the World*, John 1. 9. And, *that Law whereby the Conſciences of the Heathen either accuſe, or excuſe one another*, Rom. 2. 15.

So

So that *Hierocles* spoke well, when he said, τῷ ὀρθῷ λόγῳ πείθεσθαι καὶ θεῷ ταυτόν ἐστι: *To be perswaded by God and right Reason, is one and the same thing.* And *Luther* called *Philosophy*, within its own bounds, *The Truth of God.*

(3.) *The belief of our Reason is an Exercise of Faith; and Faith is an Act of Reason.* The former part is clear, from the last Particular, and we believe our Reasons, because we have them from God, who cannot mistake, and will not deceive. So that relying on them, in things clearly perceived, is trust in God's veracity and goodness, and that is an exercise of Faith. Thus *Luke* 12. The not belief of Reason, that suggests from *God's clothing the Lillies*, that He will provide for us, is made by our Saviour a defect of Faith, *Vers.* 28. *O ye of little Faith!* And for the other part, that Faith is an Act of Reason, that is evident also: For, *'Tis the highest Reason to believe in God revealing.*

(4.) *No Principle of Reason contradicts any Articles of Faith.* This follows upon the whole. *Faith befriends Reason*; and *Reason serves Religion*, and therefore they cannot clash. They are both certain, both the Truths of God; and one Truth doth not interfere with another, τῷ ἀληθεῖ πάντα συνᾴδει τὰ ὑπάρχοντα, saith *Aristotle*, *Truth agrees with all things that are.* Whatsoever contradicts Faith, is opposite to Reason; for 'tis a Fundamental Principle of that, That *God is to be believed.* Indeed sometimes there is a seeming contradiction between them; But then either something is taken for Faith, that is but Phansie; or something for Reason, that is but Sophistry; or the supposed contradiction is an Error and Mistake.

(5.) *When any thing is pretended from Reason, against any Article of Faith, we ought not to cut the Knot, by denying Reason; but endeavour to untie it, by answering the Argument; and 'tis certain it may be fairly answered.* For all Hereticks argue either from false Principles, or fallaciously conclude from true ones: So that our Faith is to be defended, not by declaiming against Reason, in such a case, (which strengthens the Enemy,

and, to the great prejudice of Religion, allows Reaſon on his ſide); But we muſt endeavour to defend it, either by diſcovering the falſhood of the Principles he uſeth in the name of Reaſon; or the ill Conſequence, which he calls Proof.

(6.) *When any thing is offered us for an Article of Faith that ſeems to contradict Reaſon, we ought to ſee that there be good cauſe to believe that this is divinely revealed, and in the ſenſe propounded.* If it be, we may be aſſured from the former Aphoriſms, that the Contradiction is but an Appearance; and it may be diſcovered to be ſo. But if the Contradiction be real, This can be no Article of Revelation, or the Revelation hath not this ſenſe. For God cannot be the Author of Contradictions; and we have ſeen, that Reaſon, as well as Faith, is his. I mean, the *Principles of Natural Truth*, as well as thoſe of Revelation. Τῷ ψεύδει ταχὺ διαφωνεῖ τὸ ἀληθὲς, ſaith *Ariſtotle*, *Truth is throughout contrary to falſhood*; and what is true in Divinity, cannot be falſe in Reaſon. 'Tis ſaid indeed in the *Talmud*, If two *Rabbins* differ in Contradictories, yet both have their Opinions from *Moſes*, and from *God*. But we are not obliged to ſuch an irrational kind of Faith; And ought not to receive any thing as an Article of it, in a ſenſe that palpably contradicts Reaſon, no more than we may receive any ſenſe that contradicts the direct Scriptures. Faith and Reaſon accord, as well as the *Old Teſtament*, and the *New*; and the *Analogy* of Reaſon is to be heeded alſo, becauſe even that is Divine and Sacred.

(7.) *There is nothing that God hath revealed to oblige our Faith, but he hath given us reaſon to believe that he hath revealed it.* For though the thing be never ſo clearly told me, if I have not reaſon to think, that God is the Revealer of what is ſo declared, I am not bound to believe it; except there be evidence in the thing it ſelf. For 'tis not Faith, but vain credulity to believe every thing that pretends to be from God. So that we ought to ask our ſelves a Reaſon, why we believe the Scripture to be the Revelation of God's Will, and ought not to aſſent to any ſenſe put upon it, till we have ground to think, that that ſenſe is his mind? I ſay, we muſt have ground,

either

either from our particular Reasons, or the Authority of the Church; otherwise our Faith is vain Credulity, and not Faith in God.

(8.) *A Man may hold an erroneous Opinion from a mistaken sense of Scripture, and deny what is the truth of the Proposition, and what is the right meaning of the Text, and yet not err in Faith.* For Faith is a belief of God revealing: And if God have not so revealed this, or that, as to give us certain ground to believe this to be his sense, he hath not sufficiently revealed it to oblige our Faith. So that though I deny such, or such a sense, while I believe it is not from God; his veracity and Authority is not concerned, since I am ready however to give a chearful assent to what-ever is clearly and sufficiently revealed. This Proposition follows from the former, and must be understood only of those Doctrines that are difficult, and obscurely delivered: And that many things are so delivered in Scripture, is certain; For some are only hinted, and spoken occasionally; some figuratively, and by way of Parable, and Allegory; some according to Mens Conceptions; and some in Ambiguous and Ænigmatical Phrases; which Obscurities may occasion mistake in those, who are very ready to believe what-ever God saith; and when they do, I should be loth to say that such err in Faith; Though those that wrest plain Texts to a compliance with their Interests, and their Lusts; Though their Affections may bring their Judgments to vote with them, yet theirs is Error in Faith with a witness, and capable of no benefit from this Proposition.

(9.) *In searching after the sense of Scripture, we ought to consult the Principles of Reason, as we do other Scriptures.* For we have shewn, That Reason is another part of God's Word. And though the Scripture be sufficient for its own end, yet Reason must be presupposed unto it; for without this, Scripture cannot be used, nor compared, nor applied, nor understood.

(10.) *The Essentials of Religion are so plainly revealed, that no Man can miss them, that hath not a mighty corrupt bias in his Will and Affections to infatuate and blind his Understanding.*

 Those

Those Essentials are contained in the *Decalogue* and the *Creed* : Many speculative remoter Doctrines may be true, but not Fundamental. For 'tis not agreeable to the goodness or justice of God, that Mens eternal Interests should depend upon things that are difficult to be understood, and easily mistaken. If they did, No Man could be secure, but that, do what he could, he should perish everlastingly, for not believing, or believing amiss some of those difficult Points, that are supposed necessary to Salvation ; and all those that are ignorant, and of weak understanding, must perish without help, or they must be saved by implicit Faith in unknown Fundamentals.

THESE are some Propositions that follow from my Discourse, and from one another. The better they are considered, the more their force will be perceived ; and I think they may serve for many very considerable purposes of Religion, Charity, and the peace of Mankind.

AND now, as a Conclusion to the whole, I shall add some Considerations of the dangerous tendency of the common practice (at least among the Sects) of declaiming against Reason as an Enemy to Religion.

(1.) *It tends to the introduction of* Atheism, Infidelity, *and* Scepticism; *and hath already brought in a flood of these upon us.* For what advantage can the Atheist and Infidel expect greater than this, That Reason is against Religion ? What do they pretend ? What can they propose more ? If so, there will be no proving, That there is a God ; or, That the Scripture is his Word ; and then we believe *gratis* ; and our Faith hangs upon Humour and Imagination ; and that Religion that depends upon a warm Phansie, and an ungrounded belief, stands but till a Disease, or a new Conceit alter the Scene of Imagination, and then down falls the Castle, whose Foundation was in the Air. 'Twas the charge of *Julian* the Apostate against the Primitive Christians ; οὐδὲν ὑπὲρ τὸ πίστευσον τῆς ὑμετέρας ἐστὶ σοφίας ; *That their Wisdom was to believe* ; as if they had *no ground* for their Faith. And those that renounce and decry Reason, justifie *Julian* in his Charge. If this be so, Religion will have

no

no bottom, but the Phansie of every one that professeth it; and how various and inconstant a thing Imagination is, every Man knows. These are the Consequences of defamations of Reason, on the pretended account of Religion; and we have seen, in multitudes of deplorable Instances, That they follow in practice, as well as reasoning. Men of corrupt inclinations suspect that there is no Reason for our Faith and Religion, and so are upon the borders of quitting it; And the *Enthusiast*, that pretends to know Religion best, tells them, that these Suspicions are very true; and thence the *Debauchee* gladly makes the desperate Conclusion: Or at least, when they hear that Reason is uncertain, various, and fallacious, they deny all credit to their Faculties, and become confounded *Scepticks*, that settle in nothing. This I take to have been one of the greatest and most deadly occasions of the Atheism of our days; and he that hath rejected Reason, may be one when he pleaseth, and cannot reprehend, or reduce any one, that is so already.

(2.) *The denial of Reason in Religion, hath been the principal Engine that Hereticks and Enthusiasts have used against the Faith; and that which lays us open to infinite follies and impostures.* Thus the *Arrians* quarrelled with ὁμοιούσια, because it was deduced by consequence, but not expressed in Scripture. The *Apollinarists* would by no means allow of Reason; And St. *Austin* saith of the *Donatists*, that they did *calumniate*, and decry *It*, to *raise prejudice against the Catholick Faith*; and elsewhere, *Doctores vestri Hominem dialecticum fugiendum potius, & cavendum, quàm refellendum censuerunt.* The *Ubiquitarians* defend their Errors, by denying the judgment of Reason; and the *Macedonians* would not have the Deity of the Holy Ghost proved by Consequence. The later *Enthusiasts* in *Germany*, and other places, set up loud and vehement out-cries against Reason; and the *Lunaticks* among us (that agree in nothing else) do yet sweetly accord in opposing this Carnal Reason; and this indeed is their common Interest. The impostures of Mens Phansies must not be seen in too much light; and we cannot dream with our eyes open. Reason would discover the nakedness of Sacred Whimsies, and the vanity of Mysterious Non-sense; This would disparage the Darlings

Darlings of the Brain, and cool the pleaſant heats of kindled Imagination: And therefore Reaſon muſt be decryed, becauſe an enemy to madneſs; and Phanſie ſet up, under the Notion of Faith and Inſpiration. Hence Men had got the trick to call every thing that was Conſequent, and Reaſonable, Vain Philoſophy; and every thing that was Sober, Carnal Reaſoning. Religion is ſet ſo far above Reaſon, that at length it is put beyond Sobriety and Senſe; and then 'twas fit to be believed, when 'twas impoſſible to be proved, or underſtood. The way to be a Chriſtian, is firſt to be a Brute; and to be a true Believer, in this Divinity, is to be fit for Bedlam. Men have been taught to put out their eyes, that they might ſee; and to hoodwink themſelves, that they might avoid the Precipices. Thus have all Extravagancies been brought into Religion, beyond the Imaginations of a Fever, and the Conceits of Midnight: Whatever is phanſied, is certain; and whatever is vehement, is Sacred; every thing muſt be believed, that is dream'd; and every thing that is abſurd, is a Myſtery. And by this way, Men in our days have been prepared to ſwallow every thing, every thing but what is ſober: whatever is wild, will be ſuck'd in like the Air; but what is reaſonable, will be fled like Infection. So that if a Man would recommend any Doctrine for his life, to thoſe Enemies of Reaſon, it muſt be ſome odd non-ſenſe, in the clothing of Imagination; and he that can be the Author of a new kind of Madneſs, ſhall lead a Party. Thus hath Religion, by the diſparagement of Reaſon, been made a Medley of Phantaſtick Traſh, ſpiritualized into an heap of Vapours, and formed into a Caſtle of Clouds; and expoſed to every Wind of Humour and Imagination.

(3.) *By the ſame way great advantage is given to the Church of Rome:* Which is well known by thoſe that adhere unto it. And therefore *Perronius*, *Gonterius*, *Arnoldus*, *Veronius*, and other Jeſuites, have loudly declaimed againſt Reaſon; and the laſt mentioned, *Veronius*, preſented the World with a Method to overthrow *Hereticks*, (meaning thoſe of the *Proteſtant* Faith) which promiſed more than ordinary; And that was, to deny and renounce all Principles of Reaſon in Affairs of Faith, abſolutely and roundly; and not to vouchſafe an Anſwer to any Argument againſt *Tranſubſtantiation*, or the other Articles of their

their new Faith; but point-blank to deny whatever Reason saith in such Matters. And he affirms, that even these Principles of Reason, *viz. Non entis non sunt Attributa*; *omne quod est, quando est, necesse est esse*; and such like, which are the Foundations of all Reasoning, are dangerous to the *Catholick Faith*, and therefore not to be heeded. This Man speaks out, and affirms directly and boldly, what the other Enemies of Reason mean, but will not own. This is a Method to destroy *Hereticks* in earnest; but the mischief is, all Christians, and all other Religions, and all other Reasonings are cut off by the same Sword. This Book and Method of *Veronius* was kindly received by the *Pope*, priviledged by the King of *Spain*, approved by *Cardinals*, *Archbishops*, *Bishops*, and all the *Gallick Clergy*, as solid, and for the advantage of Souls; and the *Sorbone Doctors* gave it their approbation, and recommended it as the only way to confute us, and all the other Adversaries of their corrupted Faith and Religion. Did these know what they did? And did they, think we, understand the Interest of the *Roman* Church? If so, we kindly serve their ends, and promote their Designs in the way, which they account best, while we vilifie and disparage Reason. If this be renounced in Matters of Religion, with what face can we use it against the Doctrine of *Transubstantiation*, or any other Points of the *Roman Creed?* Would it not be blameless and irreprovable for us to give up our Understandings implicitly to the Dictates and Declarations of that *Church?* May we not follow blindly whatever the *Infallible Man* at *Rome* and his *Councils* say? And would it not be vain self-contradiction to use Arguments against their *Decrees*, though they are never so unreasonable? Or to alledge Consequences from Scripture against any of their Articles, though never so contrary to the *Holy Oracles?* How easily may they rejoyn, when we dispute against them; You argue from Reason, and by Consequences; But Reason is dull and carnal, and an enemy to the things of the Spirit, and not to be heard in the high Matters of *Religion?* And what can we say next, if allow of the Accusation? I say, by this way, we perfectly disable, or grosly contradict our selves, in most of our Disputes against the *Romanists:* And we are very disingenuous in our dealings, while we use Reason against them, and deny

deny it, when 'tis urged against our selves by another sort of Adversaries; which implies, that when we say, *Reason is not to be heard*, we mean, 'tis not to be *heard against us*; But it must against the Church of *Rome*, or any others we can oppugn by it. So that our denying Reason in Religion is either very humoursom and partial, or 'tis a direct yielding up our Cause to our Enemies; and doing that our selves, which is the only thing they desire, to undo us; and to promote their own *Interests* upon our *Ruines*.

And thus I have represented some of the Mischiefs that arise from the disparagement of Reason; we see they are great ones, big of many others, and such as are destructive to all Government, and all the Interests of the sober part of Mankind. This is properly *Fanaticism*, and all that we call so, grows upon it. Here the Enemies of our Church and Government began; upon this they insisted still, and filled their Books, and Pulpits, and private Corners, with these Cantings. This was the Engine to overthrow all sober Principles, and Establishments; with this the People were infatuated, and credit was reconciled to *Gibberish*, and *Folly*; *Enthusiasms*, and vain *Impulses*. This is the Food of *Conventicles* to this day; the root of their Matter, and the burden of their Preachments. Let *Reason* be heard, and tie them to Sense, and most of their *Holders-forth* have no more to say. Their spirituality, for which they are admired, is besides Reason, and against it, rather than above it; And while this Principle of the enmity between Reason and Religion stands, the People will think them the more Spiritual Preachers, because they are the less reasonable: And while they are abused by such a belief, 'twill be impossible for sober Men to have any success in their endeavours to convince them.

AGAINST
Modern Sadducism
In the Matter of
Witches and Apparitions.

Essay VI.

Essay VI.

AGAINST MODERN SADDUCISM In the Matter of Witches and Apparitions.

IF any thing were to be much admired in an Age of Wonders, not only of Nature, (which is a constant Prodigy) but of Men and Manners; it would be to me matter of astonishment, that Men, otherwise witty and ingenious, are fallen into the Conceit that there's no such thing as a *Witch*, or *Apparition*, but that these are the Creatures of Melancholly and Superstition, foster'd by Ignorance and Design; which, comparing the confidence of their disbelief, with the evidence of the things denied, and the weakness of their Grounds, would almost suggest, that themselves are an Argument of what they deny; and that so confident an Opinion could not be held upon such inducements, but by some kind of Witchcraft, and Fascination in the Fancy. And perhaps that evil Spirit, whose Influences they will not allow in Actions ascribed to such Causes, hath a greater hand and interest in their Proposition than they are aware of. For that subtil Enemy of Mankind (since Providence will not permit him to mischief us without our own concurrence) attempts that by stratagem and artifice, which he could never effect by open ways of acting; and the success of all wiles depending upon their secrecy, and concealment, his influence is never more dangerous than when his agency is least suspected. In order

therefore to the carrying on the dark and hidden Designs he manageth against our Happiness, and our Souls, he cannot expect to advantage himself more, than by insinuating a belief, *That there is no such thing as Himself*, but that Fear and Fancy make Devils now, as they did Gods of old. Nor can he ever draw the assent of Men to so dangerous an Assertion, while the standing sensible Evidences of his Existence in his practices by and upon his Instruments, are not discredited and removed.

'Tis doubtless therefore the interest of this Agent of Darkness, to have the World believe, that the Notion they have of Him, is but a *Phantôme* and Conceit; and in order thereunto, That the stories of *Witches*, *Apparitions*, and indeed every thing that brings tidings of another World, are but melancholick Dreams, and pious Romances. And when Men are arriv'd thus far, to think there are no Diabolical Contracts or Apparitions, their belief that there are such Spirits, rests only upon their Faith, and reverence to the Divine Oracles; which we have little reason to apprehend so great in such Assertors, as to command much from their assent; especially in such things in which they have corrupt Interests against their evidence. So that he that thinks there is no *Witch*, believes a Devil *gratis*, or at least upon Inducements, which he is like to find himself disposed to deny when he pleaseth. And when Men are arrived to this degree of Diffidence and Infidelity, we are beholden to them if they believe either Angel, or Spirit, Resurrection of the Body, or Immortality of Souls. These things hang together in a Chain of *Connexion*, at least in these Mens *Hypothesis*; and 'tis but an happy chance, if he that hath lost one Link, holds another. So that the Vitals of Religion being so much interessed in this Subject, it will not be unnecessary imployment particularly to discourse it.

And in order to the proof that there have been, and are unlawful Confederacies with evil Spirits, by vertue of which the hellish Accomplices perform things above their natural Powers; I must premise, that this being matter of Fact, is only capable of the evidence of Authority and Sense: And by both these, the being of Witches and Diabolical Contracts,

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is most abundantly confirm'd. All Histories are full of the Exploits of those Instruments of Darkness, and the Testimony of all Ages, not only of the rude and barbarous, but of the most civiliz'd and polish'd World, brings tidings of their strange performances. We have the Attestation of thousands of Eye and Ear-witnesses, and those not of the easily deceivable Vulgar only, but of wise and grave Discerners; and that, when no Interest could oblige them to agree together in a common *Lye:* I say, we have the light of all these Circumstances to confirm us in the belief of things done by Persons of despicable Power and Knowledge, beyond the reach of Art, and ordinary Nature. Standing publick Records have been kept of these well-attested Relations: and *Epocha's* made of those unwonted Events; Laws in many Nations have been enacted against those vile practices; Those among the *Jews*, and our own, are notorious: such Cases have been often determined near us, by Wise and Reverend Judges, upon clear and convictive Evidence: and multitudes in our Nation have suffered death for their vile Compacts with Apostate Spirits. All these I might largely prove in their particular Instances, but that 'tis not needful, since those that deny the being of *Witches*, do it not out of ignorance of these Heads of Argument, of which probably they have heard a thousand times; But from an apprehension that such a belief is absurd, and the things impossible. And upon these presumptions they contemn all Demonstrations of this nature, and are hardned against Conviction. And I think, those that can believe all Histories are Romances, that all the wiser World have agreed together to juggle Mankind into a common belief of ungrounded Fables; that the sound Senses of multitudes together may deceive them; and Laws are built upon *Chymera's*; that the gravest and wisest Judges have been Murderers; and the sagest Persons Fools, or designing Impostors: I say, those that can believe this heap of Absurdities, are either more credulous than those whose credulity they reprehend; or else have some extraordinary evidence of their Perswasion, *viz. That 'tis absurd and impossible there should be a Witch or Apparition.* And I am confident, were those little appearances remov'd, which Men have form'd in their Fancies

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cies against the belief of such things; their own Evidence would make the way to Mens assent, without any more Arguments than what they know already to enforce it. There is nothing then necessary to be done, in order to the establishing the belief I would reconcile to Mens minds; but to endeavour the removal of those Prejudices they have received against it: the chief of which I shall particularly deal with. And I begin with that bold Assertion, That

I.

(I.) *The NOTION of a Spirit is impossible and contradictious; and consequently so is that of Witches, the belief of which is founded on that Doctrine.*

To which *Objection* I Answer,

(1.) If the Notion of a Spirit to be absurd, as is pretended; that of a GOD, and a SOUL distinct from Matter, and Immortal, are likewise Absurdities. And then, That the World was jumbled into this elegant and orderly Fabrick by chance; and that our Souls are only parts of Matter, that came together we know not whence, nor how; and shall again shortly be dissolv'd into those loose Atoms that compound them; That all our Conceptions are but the thrusting of one part of Matter against another; and the *Idea's* of our Minds meer blind and casual Motions: These, and a thousand more the grossest Impossibilities and Absurdities (consequents of this Proposition, *That the Notion of a Spirit is absurd*) will be sad Certainties and Demonstrations. And with such Assertors I would cease to discourse about *Witches* and *Apparitions*, and address my self to obtain their assent to Truths infinitely more Sacred.

And yet (2.) though it should be granted them, that a Substance immaterial is as much a contradiction as they can fancy; yet why should they not believe that the Air, and all the Regions above us, may have their invisible intellectual Agents of Nature like unto our Souls, be that what it will; and some of them at least as much degenerate as the vilest and most mischievous among Men. This *Hypothesis* will be enough

enough to secure the possibility of *Witches* and *Apparitions*. And that all the upper Stories of the Universe are furnish'd with Inhabitants, 'tis infinitely reasonable to conclude from the Analogy of Nature; Since we see there is nothing so contemptible and vile in the World we reside in, but hath its living Creatures that dwell upon it; the Earth, the Water, the inferiour Air; the Bodies of Animals, the Flesh, the Skin, the Entrails; the Leaves, the Roots, the Stalks of Vegetables; yea, and all kind of Minerals in the Subterraneous Regions: I say, all these have their proper Inhabitants; yea, I suppose this Rule may hold in all distinct kinds of Bodies in the World, *That they have their peculiar Animals.* The certainty of which I believe the improvement of Microscopical Observations will discover. From whence I infer, That since this little Spot is so thickly peopled in every Atom of it, 'tis weakness to think that all the vast spaces above, and hollows under Ground, are desert and uninhabited. And if both the superiour and lower Continents of the Universe have their Inhabitants also, 'tis exceedingly improbable, arguing from the same Analogy, that they are all of the meer sensible Nature, but that there are at least some of the Rational and Intellectual Orders. Which supposed, there is good foundation for the belief of Witches, and Apparitions; though the Notion of a Spirit should prove as absurd and unphilosophical, as I judg the Denial of it. And so this first Objection comes to nothing. I descend then to the second *Prejudice*, which may be thus formed in behalf of the *Objectors*.

II.

(II.) *There are Actions in most of those Relations ascribed to Witches, which are ridiculous and impossible in the nature of things; such are (1.) their flying out of Windows, after they have anointed themselves, to remote places. (2.) Their transformation into Cats, Hares, and other Creatures. (3.) Their feeling all the hurts in their own Bodies, which they have received in those. (4.) Their raising Tempests, by muttering some nonsensical words, or performing Ceremonies alike impertinent, as ridiculous. And (5.) their being suck'd in a certain private place of their Bodies*

Bodies by a Familiar. These are presumed to be actions inconsistent with the nature of Spirits, and above the powers of those poor and miserable Agents. And therefore the Objection supposeth them performed only by the Fancy; and that the whole mystery of Witchcraft is but an illusion of crasie Imagination.

To this *aggregate Objection* I return,

(1.) In the general: The more absurd and unaccountable these Actions seem, the greater confirmations are they to me of the truth of those Relations, and the reality of what the Objectors would destroy. For these Circumstances being exceeding unlikely, (judging by the measures of common belief) 'tis the greater probability they are not fictitious: For the contrivers of Fictions use to form them to as near a conformity as they can to the most unsuspected Realities, endeavouring to make them look as like Truth, as is possible in the main Supposals, though withal they make them strange in the Circumstance. None but a Fool, or Madman, would relate, with a purpose of having it believed, that he saw in *Ireland*, Men with Horns on their Heads, and Eyes in their Breasts; or, if any should be so ridiculously vain, as to be serious in such an incredible Romance, it cannot be supposed that all Travellers that come into those parts after him should tell the same Story. There is a large Field in Fiction; and if all those Relations were Arbitrary Compositions, doubtless the first Romancers would have framed them more agreeable to the common Doctrine of Spirits; at least, after these supposed Absurdities had been a thousand times laugh'd at, People by this time would have learn'd to correct those obnoxious Extravagancies; and though they have not yet more Veracity than the Ages of Ignorance and Superstition, yet one would expect they should have got more Cunning. This suppos'd Impossibility then of these Performances, seems to me a probable Argument that they are not wilful, and designed Forgeries. And if they are Fancies, 'tis somewhat strange, that Imagination, which is the most various thing in all the World, should infinitely repeat the same Conceits in all Times and Places.

BUT

BUT again (2.) the strange Actions related of Witches, and presumed to be impossible, are not ascribed to their own Powers, but to the Agency of those wicked Confederates they imploy: And to affirm that those evil Spirits cannot do that, which we conceit impossible, is boldly to stint the powers of Creatures, whose Natures and Faculties we know not; and to measure the world of Spirits by the narrow Rules of our own impotent Beings. We see among our selves the Performances of some out-go the Conceits and Possibilities of others; and we know many things may be done by the Mathematicks, and Mechanick Artifice, which common Heads think impossible to be effected by the honest ways of Art and Nature. And doubtless, the subtilties and powers of those mischievous Fiends, are as much beyond the reach and activities of the most knowing Agents among us, as theirs are beyond the wit and ability of the most rustick and illiterate. So that the utmost that any Man's Reason in the World can amount to in this particular, is only this, That he cannot conceive how such things can be performed; which only argues the weakness and imperfection of our Knowledg and Apprehensions; not the impossibility of those Performances: and we can no more from hence form an Argument against them, than against the most ordinary Effects in Nature. We cannot conceive how the *Fœtus* is form'd in the Womb; nor as much as how a Plant springs from the Earth we tread on; we know not how our Souls move the Body; nor how these distant and extream Natures are united; as I have shewn elsewhere. And if we are ignorant of the most obvious things about us, and the most considerable within our selves, 'tis then no wonder that we know not the Constitution and Powers of the Creatures, to whom we are such strangers. Briefly then, Matters of Fact well proved ought not to be denied, because we cannot conceive how they can be performed. Nor is it a reasonable method of Inference, first to presume the thing impossible, and thence to conclude that the Fact cannot be proved: On the contrary, we should judg of the Action by the Evidence, and not the Evidence by our Fancies about the Action. This is proudly to exalt our own Opinions above the clearest Testimonies, and most sensible

Demonſtrations of Fact: and ſo to give the Lye to all Mankind, rather than diſtruſt the Conceits of our bold Imaginations. But yet further,

(3.) I think there is nothing in the Inſtances mention'd, but what may as well be accounted for by the Rules of Reaſon and Philoſophy, as the ordinary Affairs of Nature. For in reſolving Natural *Phænomena*, we can only aſſign the probable Cauſes, ſhewing how things may be, not preſuming how they are: And in the particulars under our *Examen*, we may give an account how 'tis poſſible, and not unlikely, that ſuch things (though ſomewhat varying from the common road of Nature) may be acted. And if our narrow and contracted Minds can furniſh us with apprehenſions of the way and manner of ſuch Performances, (though perhaps not the true ones) 'tis an argument that ſuch things may be effected by Creatures, whoſe Powers and Knowledg are ſo vaſtly exceeding ours. I ſhall endeavour therefore briefly to ſuggeſt ſome things that may render the poſſibility of ſuch performances conceivable, in order to the removal of this Objection, that they are *Contradictions*, and *impoſſible*.

For the firſt then, That the Confederate Spirit ſhould tranſport the Witch through the Air to the place of general Rendezvous, there is no difficulty in conceiving it; and if that be true which great Philoſophers affirm, concerning the real ſeparability of the Soul from the Body without Death, there is yet leſs; for then 'tis eaſie to apprehend, that the Soul, having left its groſs and ſluggiſh Body behind it, and being cloth'd only with its immediate Vehicle of Air, or more ſubtile Matter, may be quickly conducted to any place, by thoſe officious Spirits that attend it. And though I adventure to affirm nothing concerning the truth and certainty of this Suppoſition, yet I muſt needs ſay, it doth not ſeem to me unreaſonable. Our experience of *Apoplexies*, *Epilepſies*, *Extaſies*, and the ſtrange things Men report to have ſeen during thoſe *Deliquiums*, look favourably upon this Conjecture; which ſeems to me to contradict no Principle of Reaſon or Philoſophy, ſince Death conſiſts not ſo much in the actual ſeparation of Soul and Body, as in the indiſpoſition and unfitneſs of the Body for Vital Union, as an excellent Philoſopher hath made good:

good: On which *Hypothesis*, the Witch's anointing her self before she takes her flight, may perhaps serve to keep the Body tenantable, and in fit disposition to receive the Spirit at its return. These things, I say, we may conceive, though I affirm nothing about them; and there is not any thing in such Conceptions but what hath been own'd by Men of Worth and Name, and may seem fair and accountable enough to those who judg not altogether by customary Opinions. There's a saying of the great Apostle that seems to countenance this *Platonick* Notion; what is the meaning else of that Expression, [*Whether in the Body, or out of the Body, I cannot tell*] except the Soul may be separated from the Body without death? Which if it be granted possible, 'tis sufficient for my purpose. And

(2.) The Transformations of Witches into the shapes of other Animals, upon the same supposal is very conceivable, since then 'tis easie to apprehend, that the Power of Imagination may form those passive and pliable Vehicles into those shapes, with more ease than the Fancy of the Mother can the stubborn Matter of the *Fœtus* in the Womb, as we see it frequently doth in the Instances that occur of *Signatures*, and monstrous *Singularities*; and perhaps sometimes the confederate Spirit puts tricks upon the Senses of the Spectators, and those Shapes are only Illusions.

But then (3.) when they feel the Hurts in their gross Bodies, that they receive in their Aiery Vehicles, they must be supposed to have been really present, at least in these latter; and 'tis no more difficult to apprehend how the hurts of those should be translated upon their other Bodies, than how Diseases should be inflicted by the Imagination, or how the Fancy of the Mother should wound the *Fœtus*, as several credible Relations do attest.

And (4.) for their raising Storms and Tempests; They do it not by their own, but by the power of those Evil Spirits that reside in the Air; and the Ceremonies that are enjoyn'd them, are doubtless nothing else but Entertainments for their Imaginations, and likely design'd to perswade them, that they do these strange things themselves.

(Lastly,) For their being suck'd by the Familiar, I say, (1.) we know so little of the nature of *Dæmons* and *Spirits*, that 'tis no wonder we cannot certainly divine the Reason of so strange an Action. And yet (2.) we may conjecture at some things that may render it less improbable; For some have thought that the *Genii* (whom both the *Platonical* and *Christian Antiquity* thought embodied) are recreated by the Reeks and Vapours of Humane Blood, and the Spirits that proceed from them: Which supposal (if we allow them Bodies) is not unlikely, every thing being refresh'd and nourish'd by its Like. And that they are not perfectly abstract from all Body and Matter, (besides the Reverence we owe to the wisest Antiquity) there are several considerable Arguments I could alledge to render exceeding probable. Which things supposed, the *Devil's sucking* the *Sorceress* is no great wonder, nor difficult to be accounted for. Or perhaps (3.) this may be only a Diabolical Sacrament, and Ceremony to confirm the Hellish Covenant. To which I add, (4.) That the Familiar doth not only suck the Witch, but in the Action infuseth some poisonous Ferment into Her, which gives her Imagination and Spirits a Magical Tincture, whereby they become mischievously influential; and the word *Venefica* intimates some such Matter. Now that the Imagination hath a mighty power in Operation, is seen in the just-now mention'd Signatures, and Diseases that it causeth; and that the Fancy is modified by the Qualities of the Blood and Spirits, is too evident to need proof. Which things supposed, 'tis plain to conceive that the Evil Spirit having breath'd some vile Vapour into the Body of the Witch, it may taint her Blood and Spirits with a noxious Quality, by which her infected Imagination, heightned by Melancholy, and this worse Cause, may do much hurt upon Bodies that are obnoxious to such Influences. And 'tis very likely that this Ferment disposeth the Imagination of the Sorceress to cause the mentioned ἀφαιρεσία, or separation of the Soul from the Body, and may perhaps keep the Body in fit temper for its reentry; as also it may facilitate transformation, which, it may be, could not be effected by ordinary and unassisted Imagination.

Thus

Thus we see, 'tis not so desperate to form an apprehension of the manner of these odd Performances; and though they are not done the way I have describ'd, yet what I have said may help us to a conceit of the Possibility, which sufficeth for my purpose. And though the *Hypothesis* I have gone upon will seem as unlikely to some, as the things they attempt to explain are to others; yet I must desire their leave to suggest, that most things seem improbable (especially to the conceited, and opinionative) at first proposal: And many great Truths are strange and odd, till Custom and Acquaintance have reconciled them to our Fancies. And I'le presume to add on this occasion, (though I love not to be confident in affirming) that there is none of the Platonical Supposals I have used, but what I could make appear to be indifferently fair and reasonable.

III.

(III.) *ANother Prejudice against the being of Witches, is, That 'tis very improbable that the Devil, who is a Wise and Mighty Spirit, should be at the beck of a poor Hag, and have so little to do, as to attend the Errands and impotent Lusts of a silly old Woman.*

To which I might answer, (1.) That 'tis much more improbable that all the World should be deceiv'd in Matters of Fact, and Circumstances of the clearest Evidence and Conviction; than that the Devil, who is wicked, should be also unwise; and that He that perswades all his Subjects and Accomplices out of their Wits, should himself act like his own Temptations and Perswasions. In brief, there is nothing more strange in this Objection, than that Wickedness is Baseness and Servility; and that the Devil is at leasure to serve those whom he is at leasure to tempt, and industrious to ruine. And (2.) I see no necessity to believe that the Devil is always the Witches Confederate; but perhaps it may fitly be considered, whether the Familiar be not some departed Humane Spirit, forsaken of God and Goodness, and swallowed up by the unsatiable desire of Mischief and Revenge; which

poſſibly by the Laws, and capacity of its State, it cannot execute immediately. And why we ſhould preſume that the Devil ſhould have the liberty of wandering up and down the Earth and Air, when he is ſaid to be held in the Chains of Darkneſs; and yet that the ſeparated Souls of the Wicked, of whom no ſuch thing is affirm'd in any Sacred Record, ſhould be thought ſo impriſon'd, that they cannot poſſibly wag from the Place of their Confinement, I know no ſhadow of Conjecture. This Conceit I'm confident hath prejudic'd many againſt the belief of Witches and Apparitions, they not being able to conceive that the Devil ſhould be ſo ludicrous, as Appearing Spirits are ſometimes reported to be in their Frolicks; and they preſume, that Souls departed never reviſit the free and open Regions; which confidence, I know nothing to juſtifie: For ſince good Men in their ſtate of ſeparation are ſaid to be ἰσάγγελοι, why the wicked may not be ſuppoſed to be ἰσοδαίμονες in the worſt ſenſe of the word, I know nothing to help me to imagine. And if it be ſo ſuppoſed that the Imps of Witches are ſometimes wicked Spirits of our own Kind and Nature, and poſſibly the ſame that have been Sorcerers and Witches in this Life: This Suppoſal may give a fairer and more probable account of many of the Actions of Sorcery and Witchcraft, than the other *Hypotheſis*, that they are always Devils. And to this Conjecture, I'le adventure to ſubjoin another, which alſo hath its probability, *viz.* (3.) That 'tis not impoſſible but that the Familiars of Witches are a vile kind of Spirits, of a very inferiour Conſtitution and Nature, and none of thoſe that were once of the higheſt *Hierarchy*, now degenerated into the Spirits we call *Devils*. The common diviſion of Spirits is in my Opinion much too general; and why may we not think, there is as great a variety of Intellectual Creatures in the Inviſible World, as of Animals in the Viſible? And that all the Superiour, yea, and Inferiour Regions, have their ſeveral kinds of Spirits differing in their natural Perfections; as well as in the Kinds and Degrees of their Depravities? Which if we ſuppoſe, 'tis very probable that thoſe of the baſeſt and meaneſt Orders are they, who ſubmit to the mention'd Servilities:

And

And thus the Sagess, and grandeur of the Prince of Darkness need not be brought in question on this Occasion.

IV.

But (IV.) the Opinion of Witches seems to some to accuse Providence; and to suggest that it hath exposed Innocents to the fury and malice of revengeful Fiends; yea, and supposeth those most obnoxious, of whom we might most reasonably expect a more special care and protection; most of the cruel practices of those presum'd Instruments of Hell, being upon Children, who as they least deserve to be deserted, by that Providence that superintends all things, so they most need its Guardian Influence.

To this so specious an Objection, I have these things to answer.

(1.) Providence is an unfathomable Depth; and if we should not believe the *Phænomena* of our Senses, before we can reconcile them to our Notions of Providence, we must be grosser Scepticks than ever yet were extant. The miseries of the present Life, the unequal distributions of Good and Evil, the ignorance and barbarity of the greatest part of Mankind, the fatal disadvantages we are all under, and the hazard we run of being eternally miserable and undone; these, I say, are things that can hardly be made consistent with that Wisdom and Goodness that we are sure hath made, and mingled it self with all things. And yet we believe there is a beauty, and harmony, and goodness in that Providence, though we cannot unriddle it in particular Instances; nor, by reason of our ignorance and imperfection, clear it from contradicting Appearances; and consequently, we ought not to deny the being of Witches and Apparitions, because they will create us some difficulties in our Notions of Providence.
(2.) Those that believe that Infants are Heirs of Hell, and Children of the Devil as soon as they are disclosed to the World, cannot certainly offer such an Objection; for what is a little trifling pain of a moment, to those eternal Tortures; to which, if they die as soon as they are born, according to the tenour of this Doctrine, they are everlastingly exposed? But how-

however the caſe ſtands as to that, 'tis certain, (3.) That Providence hath not ſecur'd them from other violences they are obnoxious to, from cruelty and accident; and yet we accuſe It not, when a whole Townful of Innocents fall a Victim to the rage and ferity of barbarous Executioners in Wars and Maſſacres. To which I add, (4.) That 'tis likely the miſchief is not ſo often done by the evil Spirit immediately, but by the malignant influence of the Sorcereſs, whoſe power of hurting conſiſts in the fore-mention'd Ferment, which is infuſed into her by the Familiar. So that I am apt to think there may be a power of real Faſcination in the Witches Eyes and Imaginations, by which for the moſt part ſhe acts upon tender Bodies. *Neſcio quis teneros oculus* ———— For the Peſtilential Spirits being darted by a ſpightful and vigorous Imagination from the Eye, and meeting with thoſe that are weak and paſſive in the Bodies which they enter, will not fail to infect them with a noxious Quality, that makes dangerous and ſtrange Alterations in the Perſon invaded by this poiſonous Influence: which way of acting by ſubtil and inviſible Inſtruments, is ordinary and familiar in all natural Efficiencies. And 'tis now paſt queſtion, that Nature for the moſt part acts by ſubtil Streams and *Aporrhœa's* of Minute Particles, which paſs from one Body to another. Or however that be, this kind of Agency is as conceivable as any of thoſe Qualities, which our Ignorance hath called *Sympathy* and *Antipathy*; the reality of which we doubt not, though the manner of Action be unknown. Yea, the thing I ſpeak of is as eaſie to be apprehended, as how Infection ſhould paſs in certain tenuious Streams through the Air, from one Houſe to another; or, as how the biting of a mad Dog ſhould fill all the Blood and Spirits with a venomous and malign Ferment; the application of the Vertue doing the ſame in our Caſe, as that of Contact doth in this. Yea, ſome kinds of Faſcination are perform'd in this groſſer and more ſenſible way, as by ſtriking, giving Apples, and the like, by which the contagious Quality may be tranſmitted, as we ſee Diſeaſes often are by the touch. Now in this way of conjecture, a good account may be given why Witches are moſt powerful upon Children and timerous Perſons, *viz.* becauſe their Spirits and Imaginations

being

being weak and passive, are not able to resist the fatal Influence; whereas Men of bold Minds, who have plenty of strong and vigorous Spirits are secure from the Contagion; as in pestilential Airs clean Bodies are not so liable to Infection as other tempers. Thus we see 'tis likely enough, that, very often, the Sorceress her self doth the mischief; and we know, *de facto*, that Providence doth not always secure us from one anothers Injuries; And yet I must confess, that many times also the Evil Spirit is the Mischievous Agent; though this Confession draw on me another Objection, which I next propose;

V.

(V.) *IT may be said, that if Wicked Spirits can hurt us by the Direction, and at the desire of a Witch, one would think they should have the same power to do us injury without instigation or compact; and if this be granted, 'tis a wonder that we are not always annoyed and infested by them.* To which

I Answer, (1.) That the Laws, Liberties, and Restraints of the Inhabitants of the other World are to us utterly unknown; and in this way, we can only argue our selves into confessions of our Ignorance, which every Man must acknowledge that is not as immodest, as ignorant. It must be granted by all that own the Being, Power, and Malice of Evil Spirits, that the security we enjoy is wonderful, whether they act by Witches or not; and by what Laws they are kept from making us a Prey, to speak like Philosophers, *we cannot tell:* Yea, why they should be permitted to tempt and ruine us in our Souls, and restrain'd from touching or hurting us in our Bodies, is a Mystery not easily accountable. But (2.) though we acknowledg their Power to vex and torment us in our Bodies also; yet a reason may be given why they are less frequent in this kind of mischief, *viz.* because their main Designs are levell'd against the interest and happiness of our Souls, which they can best promote, when their Actions are most sly and secret; whereas did they ordinarily persecute Men in their Bodies, their Agency and wicked Influence would be discover'd,

ver'd, and make a mighty noise in the World, whereby Men would be awaken'd to a sutable and vigorous opposition, by the use of such means as would engage Providence to rescue them from their rage and cruelties; and at last defeat them in their great purposes of undoing us eternally. Thus we may conceive that the security we enjoy may well enough consist with the power and malice of those Evil Spirits; and upon this account may suppose that Laws of their own may prohibit their unlicenc'd Injuries; not from any goodness there is in their Constitutions, but in order to the more successful carrying on the projects of the Dark Kingdom; as Generals forbid Plunder, not out of love to their Enemies, but in order to their own success. And hence (3.) we may suppose a Law of Permission to hurt us at the instance of the Sorceress, may well stand with the polity of Hell, since by gratifying the wicked Person, they encourage her in malice and revenge, and promote thereby the main ends of their black Confederacy, which are to propagate Wickedness, and to ruine us in our eternal Interests. And yet (4.) 'tis clear to those that believe the History of the Gospel, that Wicked Spirits have vexed the Bodies of Men, without any instigation that we read of; and at this day 'tis very likely that many of the strange Accidents and Diseases that befal us, may be the infliction of Evil Spirits, prompted to hurt us only by the delight they take in mischief. So that we cannot argue the improbability of their hurting Children and others by Witches, from our own security and freedom from the Effects of their Malice, which perhaps we feel in more Instances than we are aware of.

VI.

(VI.) *ANother Prejudice against the belief of Witches, is, a presumption upon the enormous force of Melancholly and Imagination; which without doubt can do wonderful Things, and beget strange Perswasions; and to these Causes some ascribe all the Effects of Sorcery and Witchcraft.* To which I reply briefly; and yet I hope sufficiently,

(1.) That

(1.) That to resolve all the clear Circumstances of Fact, which we find in well-attested, and confirm'd Relations of this kind, into the power of deceivable Imagination, is to make Fancy the greater Prodigy; and to suppose, that it can do stranger Feats than are believed of any other kind of Fascination. To think that Pins and Nails, for instance, can, by the power of Imagination be convey'd within the Skin; or that Imagination should deceive so many as have been Witnesses in Objects of Sense, in all the Circumstances of Discovery: This, I say, is to be infinitely more credulous than the Assertors of Sorcery, and Demoniack Contracts. By the same reason it may be believ'd, that all the Battels and strange Events of the World, which our selves have not seen, are but Dreams and fond Imaginations, and like those that are fought in the Clouds, when the Brains of the deluded Spectators are the only Theatre of those fancied Transactions. And (2.) to deny evidence of Fact, because their Imagination may deceive the Relators, when we have no reason to think so, but a bare presumption, *that there is no such thing as is related*, is quite to destroy the Credit of all Humane Testimony, and to make all Men liars in a larger sense than the Prophet concluded in his haste. For not only the Melancholick and the Fanciful, but the Grave and the Sober, whose Judgements we have no reason to suspect to be tainted by their Imaginations, have from their own knowledge and experience made reports of this Nature. But to this it will possibly be rejoyn'd, and the Reply will be another prejudice against the belief for which I contend, *viz.*

VII.

(VII.) T*Hat 'tis a suspicious circumstance that Witchcraft is but a Fancy, since the Persons that are accused, are commonly poor and miserable old Women, who are over-grown with discontent and melancholy, which are very imaginative; and the Persons said to be bewitch'd, are for the most part Children, or People very weak, who are easily imposed upon, and are apt to receive strong Impressions from nothing: whereas were there any such*

thing really, 'tis not likely, but that the more cunning and ſubtil Deſperado's, who might the more ſucceſsfully carry on the miſchievous Deſigns of the Dark Kingdom, ſhould be oftener engaged in thoſe black Confederacies; and alſo one would expect Effects of the Helliſh Combination upon others than the Innocent and the Ignorant.

To which Objection it might perhaps be enough to return, (as hath been above ſuggeſted) that nothing can be concluded by this and ſuch-like arguings, but that the policy and menages of the Inſtruments of Darkneſs are to us altogether unknown, and as much in the dark as their Natures; Mankind being no more acquainted with the Reaſons and Methods of Action in the other World, than poor Cottagers and Mechanicks are with the Intrigues of Government, and Reaſons of State. Yea, peradventure (2.) 'tis one of the great Deſigns, (as 'tis certainly the Intereſt) of thoſe wicked Agents and Machinators, induſtriouſly to hide from us their influences and ways of acting, and to work, as near as is poſſible, *incognito*; upon which ſuppoſal 'tis eaſie to conceive a reaſon, why they moſt commonly work by, and upon the weak and ignorant, who can make no cunning Obſervations, or tell credible Tales to detect their Artifice. Beſides (3.) 'tis likely a ſtrong Imagination, that cannot be weaken'd or diſturb'd by a buſie and ſubtil Ratiocination, is a neceſſary requiſite to thoſe wicked Performances; without doubt an heightned and obſtinate Fancy hath a great influence upon impreſſible Spirits; yea, and as I have conjectur'd before, on the more paſſive and ſuſceptible Bodies: And I am very apt to believe, that there are as real Communications and Intercourſes between our Spirits, as there are between Material Agents; which ſecret Influences, though they are unknown in their Nature, and ways of acting, yet they are ſufficiently felt in their Effects: For Experience atteſts, that ſome by the very majeſty and greatneſs of their Spirits, diſcover'd by nothing but a certain noble Air that accompanies them, will bear down others leſs great and generous, and make them ſneak before them; and ſome, by I know not what ſtupifying vertue, will tie up the Tongue, and confine the Spirits of thoſe who are otherwiſe brisk and voluble.

voluble. Which thing suppos'd, the influences of a Spirit possess'd of an active and enormous Imagination, may be malign and fatal where they cannot be resisted; especially when they are accompanied by those poisonous Reaks that the Evil Spirit breaths into the Sorceress, which likely are shot out, and applyed by a Fancy heightned and prepared by Melancholy and Discontent. And thus we may conceive why the Melancholick and Envious are used upon such occasions, and for the same reason the Ignorant, since Knowledge checks and controuls Imagination; and those that abound much in the Imaginative Faculties, do not usually exceed in the Rational. And perhaps (4.) the *Dæmon* himself useth the Imagination of the Witch so qualified for his purpose, even in those Actions of mischief which are more properly his; for it is most probable, that Spirits act not upon Bodies immediately, and by their naked Essence, but by means proportionate and sutable Instruments that they use; upon which account likely 'tis so strictly required, that the Sorceress should belive, that so her Imagination might be more at the Devotion of the mischievous Agent: And for the same reason also Ceremonies are used in Inchantments, *viz.* for the begetting this Diabolical Faith, and heightning the Fancy to a degree of strength and vigour sufficient to make it a fit Instrument for the design'd performance. These I think are Reasons of likelihood and probability, why the Hellish Confederates are mostly the Ignorant and the Melancholick.

VIII.

(VIII.) *THe frequent Impostures that are met with in this kind, beget in some a belief, that all such Relations are Forgeries and Tales; and if we urge the evidence of a Story for the belief of Witches or Apparitions, they will produce two as seemingly strong and plausible, which shall conclude in Mistake or Design; inferring thence, that all others are of the same quality and credit.* But such Arguers may please to consider,

(1.) That a single Relation for an Affirmative, sufficiently confirmed and attested, is worth a thousand Tales of forgery

gery and imposture, from whence an Universal Negative cannot be concluded. So that though all the Objector's Stories be true, and an hundred times as many more such Deceptions; yet one Relation, wherein no fallacy or fraud could be suspected for our Affirmative, would spoil any Conclusion could be erected on them. And

(2.) It seems to me a belief sufficiently bold and precarious, that all these Relations of Forgery and Mistake should be certain, and not one among all those which attest the Affirmative Reality, with Circumstances as good as could be expected or wish'd, should be true; but all fabulous and vain. Certainly they have no reason to object Credulity to the Assertors of Sorcery and Witchcraft, that can swallow so large a Morsel. And I desire such Objectors to consider,

(3.) Whether it be fair to infer, that because there are some Cheats and Impostors, that therefore there are no Realities. Indeed frequency of deceit and fallacy will warrant a greater care and caution in examining; and scrupulosity and shiness of assent to things whereing fraud hath been practiced, or may in the least degree be suspected: But, to conclude, because that an old Woman's Fancy abused her, or some knavish Fellows put tricks upon the ignorant and timorous, that therefore whole Assizes have been a thousand times deceived in judgement upon Matters of Fact, and numbers of sober Persons have been forsworn in things wherein Perjury could not advantage them; I say, such Inferences are as void of Reason, as they are of Charity and good Manners.

IX.

(IX.) *IT may be suggested further, That it cannot be imagin'd what design the Devil should have in making those solemn Compacts, since Persons of such debauch'd and irreclaimable Dispositions as those with whom he is supposed to confederate, are pretty securely his antecedently to the Bargain, and cannot be more so by it, since they cannot put their Souls out of possibility of the Divine Grace, but by the Sin that is unpardonable; or if they could so dispose and give away themselves, it will to some seem very unlikely, that a great and mighty Spirit should oblige him-*

self

self to such observances, and keep such a-do to secure the Soul of a silly Body, which 'twere odds but it would be His, though He put himself to no further trouble than that of his ordinary Temptations.

To which Suggestions 'twere enough to say, that 'tis sufficient if the thing be well prov'd, though the Design be not known: and to argue negatively *à fine*, is very unconclusive in such Matters. The Laws and Affairs of the other World (as hath been intimated) are vastly differing from those of our Regions, and therefore 'tis no wonder we cannot judge of their Designs, when we know nothing of their Menages, and so little of their Natures. The ignorant looker-on can't imagine what the Limner means by those seemingly rude Lines and Scrawls which he intends for the Rudiments of a Picture; and the Figures of Mathematick Operation are nonsense, and dashes at a venture to one un-instructed in Mechanicks: We are in the dark to one anothers Purposes and Intendments; and there are a thousand Intrigues in our little Matters, which will not presently confess their Design, even to sagacious Inquisitors. And therefore 'tis folly and incogitancy to argue any thing one way or other from the designs of a sort of Beings, with whom we so little communicate; and possibly we can no more aim, or guess at their Projects and Designments, than the gazing Beast can do at ours, when they see the Traps and Gins that are laid for them, but understand nothing what they mean. Thus in general.

But I attempt something more particularly, in order to which I must premise, That the Devil is a name for a Body Politick, in which there are very different Orders and Degrees of Spirits, and perhaps in as much variety of place and state, as among our selves; so that 'tis not one and the same Person that makes all the Compacts with those abused and seduced Souls, but they are divers, and those 'tis like of the meanest and basest quality in the Kingdom of Darkness; which being supposed, I offer this account of the probable Design of those wicked Agents, *viz.* That having none to rule or tyrannize over within the Circle of their own Nature and Government, they affect a proud Empire over us (the desire of Domi-

Dominion and Authority being largely spread through the whole circumference of degenerated Nature, especially among those, whose pride was their original transgression) every one of these then desires to get Vassals to pay him homage, and to be employed like Slaves in the services of his Lusts and Appetites; to gratifie which desire, 'tis like it may be allowed by the constitution of their State and Government, that every wicked Spirit shall have those Souls as his property, and particular Servants and Attendants, whom he can catch in such Compacts; as those wild Beasts that we can take in hunting are ours, by the allowance of our Laws; and those Slaves that a Man hath purchas'd, are his peculiar Goods, and the Vassals of his Will. Or rather those deluding Fiends are like the seducing Fellows we call *Spirits*, who inveigle Children by their false and flattering Promises, and carry them away to the Plantations of *America*, to be servilely employed there in the Works of their Profit and Advantage. And as those base Agents will humour and flatter the simple unwary Youth, till they are on Ship-board, and without the reach of those that might rescue them from their hands: In like manner the more mischievous Tempter studies to gratifie, please, and accommodate those he deals with in this kind, till Death hath lanch'd them into the Deep, and they are past the danger of Prayers, Repentance, and Endeavours; and then He useth them as pleaseth Him. This account I think is not unreasonable, and 'twill fully answer the Objection. For though the Matter be not as I have conjectur'd, yet 'twill suggest a way how it may be conceiv'd, which destroys the Pretence, That the Design is inconceivable.

X.

B*Ut* (X.) *we are still liable to be question'd, how it comes about that those proud and insolent Designers practice in this kind upon so few, when one would expect, that they should be still trading this way, and every-where be driving on the Project, which the vileness of Men makes so feisable, and would so much serve the interest of their Lusts.*

To

To which, among other things, that might be ſuggeſted, I return,

(1.) That we are never liable to be ſo betrayed and abuſed, till by our vile Diſpoſitions and Tendencies we have forfeited the care and overſight of the better Spirits; who, though generally they are our guard and defence againſt the malice and violence of Evil Angels, yet it may well enough be thought, that ſometimes they may take their leave of ſuch as are ſwallowed up by Malice, Envy, and deſire of Revenge, qualities moſt contrary to their Life and Nature; and leave them expoſed to the invaſion and ſollicitations of thoſe Wicked Spirits, to whom ſuch hateful Attributes make them very ſutable. And if there be particular Guardian Angels, (as 'tis not abſurd to fancy) it may then well be ſuppoſed, that no Man is obnoxious to thoſe Projects and Attempts, but only ſuch whoſe vile and miſchievous Natures have driven from them their protecting Genius. Againſt this dereliction to the power of Evil Spirits, 'tis likely enough what ſome affirm, that the Royal Pſalmiſt directs that Prayer, *Pſal.* 71. 9, 10. *Caſt me not off in the time of old Age; forſake me not when my ſtrength faileth.* For——*They that keep my Soul* [φυλάσσοντες τὴν ψυχήν μου, as the LXX and the Vulgar Latin, *Qui cuſtodiunt animam meam*] *they take counſel together, ſaying, God hath forſaken him, perſecute him and take him, for there is none to deliver him.* (2.) 'Tis very probable, that the ſtate wherein they are, will not eaſily permit palpable Intercourſes between the bad *Genii*, and Mankind, ſince 'tis probable that their own Laws and Government do not allow their frequent excurſions into this World. Or, it may with as great likelyhood be ſuppoſed, that 'tis a very hard and painful thing for them, to force their thin and tenuious Bodies into a viſible conſiſtence, and ſuch Shapes as are neceſſary for their deſigns in their correſpondencies with *Witches*. For in this Action their Bodies muſt needs be exceedingly compreſs'd, which cannot well be without a painful ſenſe. And this is perhaps a reaſon why there are ſo few Apparitions, and why Appearing Spirits are commonly in ſuch haſt to be gone, *viz.* that they may be deliver'd from the unnatural

pressure of their tender Vehicles, which I confess holds more in the Apparitions of Good, than of Evil Spirits; most Relations of this kind, describing their discoveries of themselves as very transient, (though for those the Holy Scripture records, there may be peculiar reason why they are not so) whereas the Wicked Ones are not altogether so quick and hasty in their Visits: The reason of which probably is, the great subtilty and tenuity of the Bodies of the former, which will require far greater degrees of compression, and consequently of pain, to make them visible; whereas the latter are more feculent and gross, and so nearer allied to palpable Consistencies, and more easily reduceable to Appearance and Visibility.

At this turn, I have again made use of the Platonick Hypothesis, *That Spirits are embodied*, upon which indeed a great part of my Discourse is grounded: And therefore I hold my self obliged to a short account of that supposal. It seems then to me very probable from the Nature of Sense, and Analogy of Nature. For (1.) we perceive in our selves, that all Sense is caus'd and excited by Motion made in Matter; and when those Motions which convey sensible Impressions to the Brain, the Seat of Sense, are intercepted, Sense is lost: So that, if we suppose Spirits perfectly to be disjoin'd from all Matter, 'tis not conceivable how they can have the sense of any thing; For how material Objects should any way be perceiv'd, or felt without Vital Union with Matter, 'tis not possible to imagine. Nor doth it (2.) seem sutable to the Analogy of Nature, which useth not to make precipitious leaps from one thing to another, but usually proceeds by orderly steps and gradations: whereas were there no order of Beings between Us, (who are so deeply plunged into the grossest Matter) and pure, unbodied Spirits, 'twere a mighty jump in Nature. Since then the greatest part of the World consists of the finer portions of Matter, and our own Souls are immediately united unto these, 'tis exceeding probable, that the nearer orders of Spirits are vitally join'd to such Bodies; and so, Nature by degrees ascending still by the more refin'd and subtile Matter, gets at last to the pure Νόες or immaterial Minds, which the *Platonists* made the highest

Order

Order of Created Beings. But of this I have discoursed elsewhere, and have said thus much of it at present, because it will enable me to add another Reason of the unfrequency of Apparitions and Compacts, *viz.*

(3.) Because 'tis very likely, that these Regions are very unsutable, and disproportion'd to the frame and temper of their Senses and Bodies; so that perhaps the Courser Spirits can no more bear the Air of our World, than Bats and Owls can the brightest Beams of Day: Nor can the Purer and Better any more endure the noysom Steams, and poisonous Reeks of this Dunghil Earth, than the Delicate can bear a Confinement in nasty Dungeons, and the foul squalid Caverns of uncomfortable Darkness. So that 'tis no more wonder, that the better Spirits no oftner appear, than that Men are not more frequently in the Dark Hollows under-ground. Nor is't any more strange that evil Spirits so rarely visit us, than that Fishes do not ordinarily fly in the Air, (as 'tis said one sort of them doth) or that we see not the Batt daily fluttering in the Beams of the Sun. And now by the help of what I have spoken under this Head, I am provided with some things wherewith to disable another Objection, which I thus propose:

X I.

(XI.) *If there be such an intercourse between Evil Spirits and the Wicked; How comes it about that there is no correspondence between Good Angels, and the Vertuous; since without doubt these are as desirous to propagate the Spirit and Designs of the Upper and better World, as those are to promote the Interest of the Kingdom of Darkness?*

Which way of arguing is still from our Ignorance of the State and Government of the other World, which must be confest, and may, without prejudice to the Proposition I defend. But particularly, I say, (1.) That we have ground enough to believe, that Good Spirits do interpose in, yea, and govern our Affairs. For that there is a Providence reaching from Heaven to Earth, is generally acknowledg'd; but

 that

that this supposeth all things to be order'd by the immediate influence, and interposal of the Supreme Deity, some think, is not very Philosophical to suppose; since, if we judge by the Analogy of the Natural World, all things we see are carried on by the Ministery of Second Causes, and Intermediate Agents. And it doth not seem so Magnificent and Becoming an apprehension of the Supreme *Numen*, to fancy his immediate Hand in every trivial Management. But 'tis exceeding likely to conjecture, that much of the Government of us, and our Affairs, is committed to the better Spirits, with a due subordination and subserviency to the Will of the chief Rector of the Universe. And 'tis not absurd to believe, that there is a Government that runs from Highest to Lowest, the better and more perfect orders of Being still ruling the inferiour and less perfect. So that some one would fancy that perhaps the Angels may manage us, as we do the Creatures that God and Nature have placed under our Empire and Dominion. But however that is, That God rules the Lower World by the Ministery of Angels, is very consonant to the Sacred Oracles. Thus, *Deut.* 32. 8, 9. *When the Most High divided the Nations their Inheritance, when he separated the Sons of* Adam, *he set the Bounds of the People*, κατ' ἀριθμὸν ἀγγέλων Θεοῦ, *according to the number of the Angels of God*, as the *Septuagint* renders it; the Authority of which Translation, is abundantly credited and asserted, by its being quoted in the New Testament, without notice of the *Hebrew* Text; even there where it differs from it, as Learned Men have observ'd. We know also that Angels were very familiar with the Patriarchs of old; and *Jacob*'s Ladder is a Mystery; which imports their ministring in the Affairs of the Lower World. Thus *Origen* and others understand, that to be spoken by the Presidential Angels, Jer. 51. 9. *We would have healed* Babylon, *but she is not healed: forsake her, and let us go.* Like the Voice heard in the Temple before the taking of *Jerusalem* by *Titus*, μεταβαίνωμεν ἐντεῦθεν. And before *Nebuchadnezzar* was sent to learn Wisdom and Religion among the Beasts, *He* sees a *Watcher*, according to the LXX, an *Angel*, and an *Holy One come down from Heaven*, Dan. 4. 13. who pronounceth the sad Decree against Him, and calls it the *Decree* of the *Watchers*,

Watchers, who very probably were the *Guardian Genii* of of Himself and his Kingdom. And that there are particular Angels that have the special Rule and Government of particular Kingdoms, Provinces, Cities, yea and of Persons, I know nothing that can make improbable: The instance is notorious in *Daniel*, of the Angels of *Persia* and *Græcia*, that hindred the other that was engaged for the Concerns of *Judæa*; yea, our Saviour himself tells us, that *Children have their Angels*; and the Congregation of Disciples supposed that St. *Peter* had his: Which things, if they be granted, the good Spirits have not so little to do with Us, and our Matters, as is generally believed. And perhaps it would not be absurd, if we referr'd many of the strange Thwarts, and unexpected Events, the Disappointments and lucky Coincidences that befal us, the unaccountable Fortunes and Successes that attend some lucky Men, and the unhappy Fates that dog others that seem born to be miserable; the Fame and Favour that still waits on some without any conceivable Motive to allure it, and the general neglect of others more deserving, whose worth is not acknowledg'd; I say, these and such-like odd things, may with the greatest probability be resolv'd into the Conduct and Menages of those Invisible Supervisors, that preside over, and govern our Affairs.

But if they so far concern themselves in our Matters, how is it that they appear not to maintain a visible and confest Correspondence with some of the better Mortals, who are most fitted for their Communications and their Influence? To which I have said some things already, when I accounted for the unfrequency of Apparitions; and I now add what I intend for another return to the main Objection, *viz.*

(2.) That the Apparition of Good Spirits is not needful for the Designs of the better World, what-ever such may be for the Interest of the other. For we have had the Appearance and Cohabitation of the Son of God; we have *Moses* and the Prophets, and the continued Influence of the Spirit, the greatest Arguments to strengthen Faith, the most powerful Motives to excite our Love, and the noblest Encouragements to quicken and raise our Desires and Hopes, any of which are more than the Apparition of an Angel; which would

would indeed be a great gratification of the Animal Life, but 'twould render our Faith less noble and less generous, were it frequently so assisted: *Blessed are they that believe, and yet have not seen.* Besides which, the Good Angels have no such Ends to prosecute, as the gaining any Vassals to serve them, they being Ministring Spirits for our good, and no self-designers for a proud and insolent Dominion over us. And it may be perhaps not impertinently added, That they are not always evil Spirits that appear, as is, I know not well upon what grounds,generally imagined; but that the extraordinary detections of Murders, latent Treasures, falsified and unfulfill'd Bequests, which are sometimes made by Apparitions, may be the courteous Discoveries of the better, and more benign *Genii.* Yea, 'tis not unlikely, that those Warnings that the World sometimes hath of approaching Judgments and Calamities by Prodigies, and sundry odd *Phænomena*, are the kind Informations of some of the Inhabitants of the Upper World. Thus was *Jerusalem* forewarned before its sacking by *Antiochus*, by those Aiery Horsemen that were seen through all the City for almost forty days together, 2 *Mac.* 5. 2, 3. And the other Prodigious Portents that fore-ran its Destruction by *Titus*: which I mention, because they are notorious Instances. And though, for mine own part, I scorn the ordinary Tales of Prodigies, which proceed from superstitious Fears, and unacquaintance with Nature, and have been used to bad Purposes by the Zealous and the Ignorant; Yet I think that the Arguments that are brought by a late very Ingenious Author, to conclude against such Warnings and Predictions in the whole kind, are short and inconsequent, and built upon too narrow *Hypotheseis.* For if it be supposed,that there is a sort of Spirits over us, and about us, who can give a probable guess at the more remarkable Futurities, I know not why it may not be conjectured,that the kindness they have for us, and the appetite of fore-telling strange things, and the putting the World upon expectation, which we find is very grateful to our own Natures, may not incline them also to give us some general notice of those uncommon Events which they foresee. And I yet perceive no reason we have to fancy, that what-ever is done in this kind, must needs be either

either immediately from Heaven, or from the Angels, by extraordinary Commission and Appointment. But it seems to me not unreasonable to believe, that those officious Spirits that oversee our Affairs, perceiving some mighty and sad Alterations at hand, in which their Charge is much concerned, cannot chuse, by reason of their affection to us, but give us some seasonable hints of those approaching Calamities; to which also their natural desire to foretel strange things to come, may contribute to incline them. And by this *Hypothesis*, the fairest Probabilities, and strongest Ratiocinations against Prodigies, may be made unserviceable. But this only by the way.

I desire it may be considered further,

(3.) That God himself affords his Intimacies, and converses to the better Souls, that are prepared for it; which is a priviledge infinitely beyond Angelical Correspondence.

I confess the proud and fantastick Pretences of many of the conceited Melancholists in this Age, to Divine Communion, have prejudiced divers intelligent Persons against the belief of any such happy vouchsafement; so that they conclude the Doctrine of Immediate Communion with the Deity in this Life to be but an high flown Notion of warm Imagination, and over-lushious self-flattery; and I acknowledge I have my self had thoughts of this nature, supposing Communion with God to be nothing else but the exercise of Vertue, and that Peace, and those Comforts which naturally result from it.

But I have considered since, that God's more near and immediate imparting himself to the Soul that is prepared for that happiness by Divine Love, Humility, and Resignation, in the way of a vital Touch and Sense, is a thing possible in it self, and will be a great part of our Heaven; That Glory is begun in Grace, and God is pleased to give some excellent Souls the happy *Ante-past*; That Holy Men in ancient Times have sought and gloried in this Injoyment, and never complain so sorely as when it was with-held, and interrupted; That the Expressions of Scripture run infinitely this way, and the best of Modern good Men, do from their own experience attest it; That this spiritualizeth Religion, and renders its Injoyments more comfortable and delicious; That it keeps the

the Soul under a vivid Senſe of God, and is a grand ſecurity againſt Temptation; That it holds it ſteady amid the Flatteries of a Proſperous State, and gives it the moſt grounded Anchorage, and ſupport amid the Waves of an adverſe Condition; That 'tis the nobleſt incouragement to vertue, and the biggeſt aſſurance of an happy Immortality; I ſay, I conſidered theſe weighty things, and wondred at the careleſneſs, and prejudice of Thoughts that occaſion'd my ſuſpecting the reality of ſo glorious a Privilege; I ſaw how little reaſon there is in denying Matters of inward Senſe, becauſe our ſelves do not feel them, or cannot form an apprehenſion of them in our Minds: I am convinced that things of guſt and reliſh muſt be judg'd by the ſentient and vital Faculties, and not by the noetical Exerciſes of ſpeculative Underſtandings: And upon the whole, I believe infinitely that the Divine Spirit affords its ſenſible Preſence, and immediate Beatifick Touch to ſome rare Souls, who are diveſted of carnal Self, and mundane Pleaſures, abſtracted from the Body by Prayer and Holy Meditation; ſpiritual in their Deſires, and calm in their Affections; devout Lovers of God, and Vertue, and tenderly affectionate to all the World; ſincere in their Aims, and circumſpect in their Actions; inlarged in their Souls, and clear in their Minds: Theſe I think are the diſpoſitions that are requiſite to fit us for Divine Communion; and God tranſacts not in this near way, but with prepared Spirits who are thus diſpoſed for the manifeſtation of his Preſence, and his Influence: And ſuch I believe he never fails to bleſs with theſe happy foretaſts of Glory.

But for thoſe that are Paſſionate and Conceited, Turbulent and Notional, Confident and Immodeſt, Imperious and Malicious; That doat upon Trifles, and run fiercely in the ways of a Sect; that are lifted up in the apprehenſion of the glorious Prerogatives of themſelves and their Party, and ſcorn all the World beſides; For ſuch, I ſay, be their Pretenſions what they will, to Divine Communion, Illapſes, and Diſcoveries, I believe them not; Their Fancies abuſe them, or they would us. For what Communion hath Light with Darkneſs, or the Spirit of the *Holy One* with thoſe, whoſe Genius and Ways are ſo unlike him: But the other excellent Souls I deſcrib'd,

describ'd, will as certainly be visited by the Divine Presence, and Converse, as the Chrystaline Streams are with the Beams of Light, or the fitly prepared Earth, whose Seed is in it self, will be actuated by the Spirit of Nature.

So that there is no reason to Object here the want of Angelical Communications, though there were none vouchsafed us, since good Men enjoy the Divine, which are infinitely more satisfactory and indearing.

And now I may have leave to proceed to the next Objection, which may be made to speak thus:

XII.

(XII.) *The belief of Witches, and the wonderful things they are said to perform by the help of the* Confederate Dæmon, *weakens our Faith, and exposeth the World to Infidelity in the great Matters of our Religion. For if they by Diabolical Assistance, can inflict and cure Diseases, and do things so much beyond the comprehension of our Philosophy, and activity of common Nature; What assurance can we have, that the Miracles that confirm our Gospel were not the Effects of a Compact of like nature, and that Devils were not cast out by* Beelzebub? *If Evil Spirits can assume Bodies, and render themselves visible in humane Likeness; What security can we have of the reality of the Resurrection of Christ? And if, by their help, Witches can enter Chambers invisibly through Key-holes, and little unperceived Crannies, and transform themselves at pleasure; What Arguments of Divinity are there in our Saviour's shewing himself in the midst of his Disciples, when the Doors were shut, and his Transfiguration in the Mount? Miracles are the great Inducements of Belief; and how shall we distinguish a Miracle from a Lying Wonder; a Testimony from Heaven, from a Trick of the Angels of Hell; if they can perform things that astonish and confound our Reasons, and are beyond all the Possibilities of Humane Nature?* To this Objection I reply;

(1.) The Wonders done by Confederacy with Wicked Spirits, cannot derive a suspition upon the undoubted Miracles that were wrought by the Author and Promulgers of our

Religion, as if they were performed by Diabolical Compact, since their Spirit, Endeavours, and Designs, were notoriously contrary to all the Tendencies, Aims, and Interests of the Kingdom of Darkness. For, as to the Life and Temper of the Blessed and Adorable JESUS, we know there was an incomparable sweetness in his Nature, Humility in his Manners, Calmness in his Temper, Compassion in his Miracles, Modesty in his Expressions, Holiness in all his Actions, Hatred of Vice and Baseness, and Love to all the World; all which are essentially contrary to the Nature and Constitution of Apostate Spirits, who abound in Pride and Rancour, Insolence and Rudeness, Tyranny and Baseness, Universal Malice, and Hatred of Men: And their Designs are as opposite, as their Spirit and their Genius. And now, Can the Sun borrow its Light from the Bottomless Abyss? Can Heat and Warmth flow in upon the World from the Regions of Snow and Ice? Can Fire freeze, and Water burn? Can Natures, so infinitely contrary, communicate, and jump in Projects, that are destructive to each others known Interests? Is there any Balsam in the Cockatrices Egg? or, Can the Spirit of Life flow from the Venom of the Asp? Will the Prince of Darkness strengthen the Arm that is stretcht out to pluck his Usurp't Scepter, and his Spoils from him? And will he lend his Legions, to assist the Armies of his Enemy against him? No, these are impossible Supposals; No intelligent Being will industriously and knowingly contribute to the Contradiction of its own Principles, the Defeature of its Purposes, and the Ruine of its own dearest Interests. There is no fear then, that our Faith should receive prejudice from the acknowledgement of the Being of Witches, and Power of Evil Spirits, since 'tis not the doing wonderful things that is the only Evidence that the Holy JESUS was from God, and his Doctrine True; but the conjunction of other Circumstances, the Holiness of his Life, the Reasonableness of his Religion, and the Excellency of his Designs, added credit to his Works, and strengthned the great Conclusion, *That he could be no other than the Son of God, and Saviour of the World.* But besides, I say,

(2.) That

(2.) That since Infinite Wisdom and Goodness rules the World, it cannot be conceiv'd, that they should give up the greatest part of Men to unavoidable deception. And if Evil Angels, by their Confederates are permitted to perform such astonishing things, as seem so evidently to carry God's Seal and Power with them, for the confirmation of Falshoods, and gaining credit to Impostors, without any Counter-evidence to disabuse the World; Mankind is exposed to sad and fatal Delusion: And to say that Providence will suffer us to be deceived in things of the greatest Concernment, when we use the best of our Care and Endeavours to prevent it, is to speak hard things of God; and in effect to affirm, That He hath nothing to do in the Government of the World, or doth not concern himself in the Affairs of poor forlorn Men: And if the Providence and Goodness of God be not a security unto us against such Deceptions, we cannot be assured, but that we are always abused by those mischievous Agents, in the Objects of plain Sense, and in all the Matters of our daily Converses. If One that pretends he is immediately sent from God, to overthrow the Ancient Fabrick of Established Worship, and to erect a New Religion in His Name, shall be born of a Virgin, and honoured by a Miraculous Star; proclaimed by a Song of seeming Angels of Light, and Worshipped by the Wise Sages of the World; Revered by those of the greatest Austerity, and admired by all for a Miraculous Wisdom, beyond his Education and his Years: If He shall feed Multitudes with almost nothing, and fast himself beyond all the possibilities of Nature: If He shall be transformed into the appearance of extraordinory Glory, and converse with departed Prophets in their visible Forms: If He shall Cure all Diseases without Physick or Endeavour, and raise the Dead to Life after they have stunk in their Graves: If He shall be honoured by Voices from Heaven, and attract the Universal Wonder of Princes and People: If he shall allay Tempests with a Beck, and cast out Devils with a Word: If he shall foretel his own Death particularly, with its Tragical Circumstances, and his Resurrection after it: If the Veil of the most famous Temple in the World shall be Rent, and the Sun darkned at his Funeral: If He shall, within the time

foretold, break the Bonds of Death, and lift up his Head out of the Grave: If Multitudes of other departed Souls shall arise with Him, to attend at the Solemnity of his Resurrection: If He shall, after Death, visibly Converse, and Eat, and Drink with divers Persons, who could not be deceived in a Matter of clear Sense, and ascend in Glory in the presence of an astonisht and admiring Multitude: I say, if such a One as this should prove a Diabolical Impostor, and Providence should permit him to be so credited and acknowledged; What possibility were there then for us to be assured, that we are not always deceived? yea, that our very Faculties were not given us only to delude and abuse us? And if so, the next Conclusion is, *That there is no God that judgeth in the Earth*; and the best, and most likely *Hypothesis* will be, *That the World is given up to the Government of the Devil.* But if there be a Providence that superviseth us, (as nothing is more certain) doubtless it will never suffer poor helpless Creatures to be inevitably deceived, by the craft and subtilty of their mischievous Enemy, to their undoing; but will without question take such care, that the *Works* wrought by Divine Power for the confirmation of Divine Truth, shall have such visible Marks and Signatures, if not in their Nature, yet in their Circumstances, Ends, and Designs, as shall discover whence they are, and sufficiently distinguish them from all Impostures and Delusions; And though wicked Spirits may perform some strange things that may excite wonder for a while, yet He hath, and will so provide, that they shall be baffled and discredited; as we know it was in the Case of *Moses* and the *Ægyptian Magicians.*

These things I count sufficient to be said to this last, and shrewdest Objection; Though some, I understand, except, that I have made it stronger than the Answer I have applyed. That I have urged the Argument of Unbelievers home, and represented it in its full strength, I suppose can be no matter of just reproof; For to triumph over the weakness of a Cause, and to over-look its strength, is the trick of shallow and interessed Disputers, and the worst way to defend a Good Cause, or confute a Bad One. I have therefore all along urged the most cogent Things I could think of, for the Interest

of

of the Objectors, because I would not impose upon my Reader or my self; and the stronger I make their Premises, the more shall I weaken their Conclusion, if I answer them; which whether I have done, or not, I refer my self to the Judgments of the Ingenious and Considerate; from whom I should be very glad to be informed in what particular Points my Discourse is defective; General Charges are no Proofs, nor are they easily capable of an Answer. Yet, to the mention'd Exception, I say,

That the strength of the Objection is not my fault, for the Reasons alledg'd; and for the supposed incompetency of my return, I propose, that if the Circumstances of the Persons, Ends, and Issues be the best Notes of Distinction between true Miracles and Forgeries, Divine and Diabolical Ones, I have then said enough to secure the Miracles of our Saviour, and the Holy Men of Ancient Times. But if these Objectors think they can give us any better, or more infallible *Criteria*, I desire them to weigh what I have offer'd about Miracles in some of the following Leaves, before they enter that Thought among their Certainties. And if their other Marks of Difference will hold, notwithstanding those Allegations, I suppose the inquisitive believing World would be glad to know them; and I shall have particular Obligations to the Discoverer, for the strength with which he will thereby assist my Answer.

But till I see that, I can say nothing stronger; or if I saw it, which I shall not in haste expect, I should not be convinced but that the Circumstances of Difference which I have noted, are abundantly sufficient to disarm the Objection; and to shew, that though Apparitions, Witchcraft, and Diabolical Wonders are admitted: yet none of these can fasten any Slur, or ground of dangerous Doubt upon the miraculous performances of the *H. Jesus* and his Apostles. If the dissatisfied can shew it, I shall yeeld my self an humble Proselite to their Reasons; but till I know them, the General Suggestion will not convince me.

Now, besides what I have directly said to the Main Objection, I have this to add to the Objectors, That I could wish they would take care of such Suggestions; which, if they overthrow not the Opinion they oppose, will dangerously

rously affront the Religion they would seem to acknowledge. For he that saith, *That if there are Witches, there is no way to prove that Christ Jesus was not a Magician, and Diabolical Impostor*, puts a deadly Weapon into the hands of the Infidel, and is himself next door to the *Sin against the Holy Ghost*: of which, in order to the perswading greater tenderness and caution in such Matters, I give this short account.

THe Sin against the Holy Ghost is said to be Unpardonable; by which sad Attribute, and the Discourse of our Saviour, *Mat.* 12. from the 22 to the 33 *Verse*, we may understand its Nature. In order to which we consider, That since the Mercies of God, and the Merits of his Son, are infinite, there is nothing can make a Sin unpardonable, but what makes it incurable; and there is no Sin but what is curable by a strong Faith, and a vigorous Endeavour: *For all things are possible to him that believeth*. So that, That which makes a Sin incurable, must be somewhat that makes Faith impossible, and obstructs all means of Conviction. In order to the finding which, we must consider the Ways and Methods the Divine Goodness hath taken, for the begetting Faith, and cure of Infidelity: which it attempted, first, by the Prophets, and Holy Men of Ancient Times, who, by the excellency of their Doctrine, the greatness of their Miracles, and the holiness of their Lives, endeavoured the Conviction and Reformation of a stubborn and unbelieving World. But though few believed their report, and Men would not be prevail'd on by what they did, or what they said; yet their Infidelity was not hitherto incurable, because further means were provided in the Ministry of *John* the *Baptist*, whose Life was more severe, whose Doctrines were more plain, pressing and particular: and therefore 'twas possible that He might have succeeded. Yea, and where He failed, and could not open Mens Hearts and Eyes, the Effect was still in possibility, and it might be expected from Him that came after, to whom the Prophets and *John* were but the Twilight and the Dawn. And though His miraculous Birth, the Song of Angels, the Journey of the Wise Men of the East, and the correspondence of Prophesies, with the Cir-

cumstances

cumstances of the first appearance of the Wonderful Infant: I say, though these had not been taken notice of, yet was there a further provision made for the cure of Infidelity, in his astonishing Wisdom, and most excellent Doctrines; For, *He spake as never Man did.* And when these were despised and neglected, yet there were other Means towards Conviction, and Cure of Unbelief, in those mighty Works that bore Testimony of Him, and wore the evident Marks of Divine Power in their Foreheads. But when after all, These clear and unquestionable Miracles which were wrought by the Spirit of God, and had eminently his Superscription on them, shall be ascribed to the Agency of Evil Spirits, and Diabolical Compact, as they were by the malicious and spightful *Pharisees*; when those great and last Testimonies against Infidelity, shall be said to be but the Tricks of Sorcery, and Complotment with Hellish Confederates; This is Blasphemy in the highest, against the Power and Spirit of God, and such as cuts off all means of Conviction, and puts the Unbeliever beyond all possibilities of Cure. For Miracles are God's Seal, and the great and last Evidence of the truth of any Doctrine. And though, while these are only dis-believed as to the Fact, there remains a possibility of Perswasion; yet, when the Fact shall be acknowledg'd, but the Power Blasphemed, and the Effects of the Adorable Spirit maliciously imputed to the Devils; such a Blasphemy, such an Infidelity is incurable, and consequently unpardonable. I say, in sum, the Sin against the Holy Ghost seems to be a malicious imputation of the Miracles wrought by the Spirit of God in our Saviour to Satanical Confederacy, and the Power of Apostate Spirits; Then which, nothing is more blasphemous, and nothing is more like to provoke the Holy Spirit that is so abused to an Eternal Dereliction of so Vile and so Incurable an Unbeliever.

This account, as 'tis clear and reasonable in it self, so it is plainly lodg'd in the mention'd Discourse of our Saviour. And most of those that speak other things about it, seem to me to talk at random, and perfectly without Book.

I Have thus endeavoured to remove the Main Prejudices against the belief of Witches and Apparitions; and I'me sure I have suggested much more against what I defend, than ever I heard or saw in any that opposed it, whose Discourses, for the most part, have seemed to me inspired by a lofty scorn of common belief, and some trivial Notions of Vulgar Philosophy. And in despising the Common Faith about Matters of Fact, and fondly adhering to it in things of Speculation, they very grosly and absurdly mistake: For in things of Fact, the People are as much to be believ'd, as the most subtile Philosophers and Speculators; since here, Sense is the Judge. But in Matters of Notion and Theory, They are not at all to be heeded, because Reason is to be Judge of these, and this they know not how to use. And yet thus it is with those wise Philosophers, that will deny the plain Evidence of the Senses of Mankind, because they cannot reconcile Appearances to the fond Fancies of a Philosophy, which they lighted on in the High-way by Chance, and will adhere to at adventure. So that I profess, for mine own part, I never yet heard any of the confident Declaimers against Witchcraft and Apparitions, speak any thing that might move a Mind, in any degree instructed in the generous kinds of Philosophy, and Nature of things. And for the Objections I have recited, they are most of them such as rose out of mine own Thoughts, which I obliged to consider what might be to be said upon this occasion.

For though I have examined *Scot*'s *Discovery*, fancying that there I should find the strong Reasons of Mens dis-belief in this Matter: Yet I met not with any thing in that *Farrago* that was considerable. For the Author doth little but tell odd Tales, and silly Legends, which he confutes and laughs at, and pretends this to be a Confutation of the Being of Witches and Apparitions. In all which, His Reasonings are Trifling and Childish; and when He ventures at Philosophy, He is little better than absurd: So that I should wonder much if any but Boys and Buffoons should imbibe Prejudices against a Belief so infinitely confirmed, from the loose and impotent Suggestions of so weak a Discourser.

But

But however observing two things in that Discourse that would pretend to be more than ordinary Reasons, I shall do them the civility to examine them. It is said,

(1.) *THat the Gospel is silent, as to the Being of Witches; and 'tis not likely, if there were such, but that our Saviour or his Apostles had given intimations of their Existence.* The other is,

(2.) *MIracles are ceased, and therefore the prodigious things ascribed to Witchcraft, are supposed Dreams and Impostures.*

For Answer to the First in order, I consider, (1.) That though the History of the *New Testament* were granted to be silent in the Business of Witches and Compacts, yet the Records of the Old have a frequent mention of them. The Law, *Exod.* 22. 18. against permitting them to live, is famous. And we have another remarkable prohibition of them, Deut. 18. 10, 11. *There shall not be found among you any one, that maketh his Son or his Daughter pass through the Fire, or that useth Divination, or an Observer of Times, or an Enchanter, or a Witch, or a Charmer, or a Consulter with Familiar Spirits, or a Wizard, or a Necromancer.* Now this accumulation of Names, (some of which are of the same sense and import) is a plain indication that the *Hebrew Witch* was one that practised by compact with evil Spirits. And many of the same Expressions are put together in the Charge against *Manasses*, 2 Chron. 33. *viz.* That he *caused his Children to pass through the Fire, observed Times, used Inchantments, and Witchcraft, and dealt with Familiar Spirits, and with Wizards.* So that though the Original word which we render Witch and Witchcraft should, as our *Sadduces* urge, signifie only a *Cheat* and a *Poisoner*; yet those others mention'd, plainly enough speak the thing, and I have given an account in the former Considerations, how a Witch in the common Notion is a Poisoner. But why meer poisoning should have a distinct Law against it, and not be concluded under the general one against Murder; why meer Legerdemain and Cheating should be so severely animadver-

ted on, as to be reckon'd with Inchantments, converse with Devils, and Idolatrous Practices: I believe the denyer of Witches will find it hard to give a reason. To which I may add some other Passages of Scripture that yield sufficient evidence in the Case. The Nations are forbid to hearken to the Diviners, Dreamers, Inchanters, and Sorcerers, *Jer.* 27. 9. The *Chaldæans* are deeply threatned for their Sorceries and Inchantments, *Isa.* 47. 9. And we read that *Nebuchadnezzar* called the *Magicians*, *Astrologers*, *Sorcerers*, and *Chaldæans*, to tell his Dream. My mention of which last, minds me to say, that for ought I have to the contrary, there may be a sort of *Witches* and *Magicians* that have no Familiars that they know, nor any express Compact with Apostate Spirits; who yet may perhaps act strange things by Diabolick Aids, which they procure by the use of those Forms, and wicked Arts that the Devil did first impart to his Confederates: And we know not but the Laws of that Dark Kingdom may injoyn a particular attendance upon all those that practise their Mysteries, whether they know them to be theirs or not. For a great interest of their Empire may be served by this Project, since those that find such success in the unknown Conjurations, may by that be toll'd on to more express Transactions with those Fiends that have assisted them *incognito*: Or, if they proceed not so far, yet they run upon a Rock by acting in the Dark, and dealing in unknown and unwarranted Arts, in which the Effect is much beyond the proper efficiency of the things they use, and affords ground of more than suspicion that some Evil Spirit is the Agent in those wondrous Performances.

Upon this account, I say, it is not to me unlikely but that the Devils may by their own Constitution be bound to attend upon all that use their Ceremonies and Forms, though ignorantly, and without design of Evil; and so Conjuration may have been performed by those who are none of the *Covenant-Sorcerers* and *Witches*. Among those perhaps we may justly reckon *Balaam*, and the Diviners. For *Balaam*, *Moneæus* hath undertaken to clear him from the Guilt of the greater Sorcery. And the *Diviners* are usually distinctly mentioned from those that had Familiar Spirits. The *Astrologers* also of Elder

Times,

Times, and those of Ours, I take to have been of this sort of *Magicians*, and some of them, under the colour of that Mystical Science, worse. And I question not, but that things are really done, and foretold by those pretended Artists, that are much beyond the regular Possibilities of their Art; which in this appears to be exceedingly uncertain and precarious, in that there are no less than six ways of erecting a Scheme, in each of which the Prediction of Events shall be different, and yet every one of them be justifiable by the Rules of that pretended Science. And the Principles they go upon, are found to be very Arbitrary, and Unphilosophical, not by the ordinary Declaimers against it, but by the most profound Inquirers into things, who perfectly understand the whole Mystery, and are the only competent Judges.

Now those Mystical Students may in their first Addresses to this Science, have no other Design, but the satisfaction of their Curiosity to know remote and hidden things; Yet that in the Progress being not satisfied within the Bounds of their Art, doth many times tempt the Curious Inquirer to use worse means of Information; and no doubt those mischievous Spirits that are as vigilant as the Beasts of Prey, and watch all occasions to get us within their envious reach, are more constant Attenders, and careful Spies upon the Actions and Inclinations of such, whose Genius and Designs prepare them for their Temptations.

So that I look on *Judicial Astrology* as a fair Introduction to Sorcery and Witchcraft. And who knows but that it was first set on foot by Evil Spirits, as a Lure to draw the *Curioso's* into those snares that lie hid beyond it. And yet, I believe also, It may be innocently enough studied by those that aim only to understand what it is, and how far it will honestly go; and are not willing to condemn any thing which they do not comprehend. But that they must take care to keep themselves within the Bounds of sober Enquiry, and not indulge irregular Sollicitudes about the knowledge of Things, which Providence hath thought fit to conceal from us; Which who-ever doth, lays himself open to the Designs and Sollicitations of Wicked Spirits; and I believe there are very few among such as have been addicted to those Arts of Wonder and Prediction, but

have found themselves attaqued by some unknown Sollicitors, and inticed by them to the more dangerous Actions and Correspondencies. For as there are a sort of base and sordid Spirits that attend the Envy and Malice of the Ignorant and viler sort of Persons, and betray them into Compacts by Promises of Revenge; So, no doubt, there are a kind of more Aiery and Speculative Fiends, of an higher rank and order than those wretched Imps, who apply themselves to the Curious: and many times prevail with them by offers of the more Recondite Knowledge; as we know it was in the first Temptation. Yea, and sometimes they are so cautious and wary in their Conversations with more refined Persons, that they never offer to make any express Covenants with them. To this purpose I have been informed, by a very Learned and Reverend Doctor, that one Mr. *Edwards*, a Master of Arts of *Trin. Coll.* in *Cambridge*, being reclaimed from Conjuration, declared in his Repentance, that the *Dæmon* always appeared to him like a Man of good fashion, and never required any Compact from him. And no doubt, They sort themselves agreeably to the State, Port, and Genius of those with whom they converse; Yea, 'tis like, as I conjectured, are assistant sometimes to those, to whom they dare not shew themselves in any openness of appearance, lest they should fright them from those ways of Sin and Temptation. So that we see, that Men may act by Evil Spirits without knowing that they do so.

And possibly *Nebuchadnezzar*'s Wise Men might be of this sort of *Magicians*; which suppos al I mention the rather, because it may serve me against some things that may be objected: For, it may be said, If they had been in Confederacy with Devils, it is not probable that *Daniel* would have been their Advocate, or in such inoffensive terms have distinguisht their skill from Divine Revelation; nor should he, one would think, have accepted the Office of being Provost over them. These Circumstances may be suppos'd to intimate a probability, that the *Magi* of *Babylon* were in no profest Diabolical Complotment, and I grant it. But yet they might, and in all likelyhood did use the Arts and Methods of Action, which obtain *Demonaick Cooperation* and *Assistance*, though without

their

their privity, and so they were a less criminal sort of *Conjurers*; For those Arts were conveyed down along to them from one hand to another, and the Successors still took them up from those that preceded, without a *Philosophical Scrutiny* or *Examen*. They saw strange Things were done, and Events predicted by such Forms and such Words; how, they could not tell, nor 'tis like did not inquire, but contented themselves with this general account, That 'twas by the power of their Arts, and were not sollicitous for any better Reason. This, I say, was probably the case of most of those Predictors; though, it may be, others of them advanced further into the more desperate part of the Mystery. And that some did immediately transact with appearing Evil Spirits in those times, is apparent enough, from express mention in the Scriptures I have alledg'd.

And the Story of the Witch of *Endor*, 1 Sam. 28. is a remarkable Demonstration of the Main Conclusion; which will appear, when we have considered, and removed the fancy and glosses of our Author about it, in his *Discovery*: where to avoid this Evidence, he affirms, This Witch to be but a Cozener, and the whole Transaction a Cheat and Imposture, managed by her Self and a Confederate. And in order to the perswading this, he tells a fine Tale, *viz.* That she departed from *Saul* into her Closet, "Where doubtless, "says he, she had a Familiar, some lewd crafty Priest, and "made *Saul* stand at the Door like a Fool, to hear the cozen-"ing Answers. He saith, she there used the ordinary words "of Conjuration; and after them, *Samuel* appears, whom "he affirms to be no other than either the Witch her self, or "her Confederate. By this pretty knack and contrivance, he thinks he hath disabled the Relation from signifying to our purpose.

But the *Discoverer* might have consider'd, that all this is an Invention, and without Book. For there is no mention of the Witch's Closet, or her retiring into another Room, or her Confederate, or her Form of Conjuration; I say, nothing of all this is as much as intimated in the *History*; and if we may take this large liberty in the Interpretation of Scripture, there is scarce a Story in the Bible but may be made a Fallacy and

Imposture,

Imposture, or any thing that we please. Nor is this Fancy of his only Arbitrary, but indeed contrary to the Circumstances of the Text. For it says, *Saul perceived it was* Samuel, *and bowed himself*, and *this* Samuel *truly* foretold his approaching Fate, *viz.* That *Israel* should be deliver'd with him into the hands of the *Philistines*; and that on the morrow, He and his Sons should be in the state of the Dead; which doubtless is meant by the Expression, that [*they should be with him*]; Which contingent Particulars, how could the Cozener and her Confederate foretel, if there were nothing in it extraordinary and preternatural?

It hath indeed been a great Dispute among Interpreters, whether the real *Samuel* was raised, or the Devil in his likeness? Most later Writers suppose it to have been an Evil Spirit, upon the supposition that Good and Happy Souls can never return hither from their Cœlestial Abodes; and they are not certainly at the Beck and Call of an impious Hag. But then those of the other side urge, that the Piety of the words that were spoke, and the seasonable Reproof given to despairing *Saul*, are Indications sufficient that they came not from Hell; and especially they think the Prophesie of Circumstances very accidental to be an Argument, that it was not utter'd by any of the Infernal Predictors. And for the supposal that is the ground of that Interpretation, 'tis judged exceedingly precarious; for who saith that happy departed Souls were never employed in any Ministeries here below? And those Dissenters are ready to ask a Reason, Why they may not be sent in Messages to Earth, as well as those of the Angelical Order? They are nearer allyed to our Natures, and upon that account more intimately concern'd in our Affairs; and the example of returning *Lazarus*, is evidence of the thing *de facto*. Besides which, that it was the Real *Samuel* they think made probable by the Opinion of *Jesus Syrac*, Ecclus. 46. 19, 20. who saith of him, That *after his death he prophesied and shewed the King his end:* which also is likely from the Circumstance of the Woman's Astonishment, and crying out when she saw him, intimating her surprize, in that the Power of God had over-ruled her Inchantments, and sent another than she expected. And they conceive there

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is no more incongruity in supposing God should send *Samuel* to rebuke *Saul* for this his last folly, and to predict his instant ruine, than in his interposing *Elias* to the Messengers of *Ahazias* when he sent to *Beelzebub*. Now if it were the Real *Samuel*, as the Letter expresseth, (and the obvious sense is to be followed when there is no cogent Reason to decline it) he was not raised by the Power of the Witches Inchantments, but came on that occasion in a Divine Errand. But yet her Attempts and Endeavours to raise her Familiar Spirit, (though at that time over-ruled) are Arguments that it had been her custom to do so. Or if it were as the other side concludes, the Devil in the shape of *Samuel*, her Diabolical Confederacy is yet more palpable.

I Have now done with *Scot*, and his presumptions; and am apt to fancy, that there is nothing more needful to be said to discover the Discoverer. But there is an Author infinitely more valuable, that calls me to consider him, 'Tis the great *Episcopius*; who, though he grants a sort of *Witches* and *Magicians*, yet denies Compacts. His Authority, I confess, is considerable, but let us weigh his Reasons.

His First is, That there is no Example of any of the Prophane Nations that were in such Compact; whence he would infer, That there are no express Covenants with Evil Spirits in particular Instances. But I think that both Proposition and Consequence are very obnoxious. For that there were Nations that did actually worship the Devil, is plain enough in the Records of Ancient Times; and some so read that place in the *Psalms*, *The Gods of the Heathen are Devils*; and Satan we know is call'd the *God of this World*. Yea, our Author himself confesseth, that the Nation of the *Jews* were so strictly prohibited Witchcraft, and all transaction with Evil Spirits, because of their proneness to worship them. But what need more? There are at this day that pay Sacrifice, and all Sacred Homage to the *Wicked One* in a visible Appearance; and 'tis well known to those of our own that traffick, and reside in those Parts, that the *Caribbians* worship the Devil under the name of *Maboya*, who frequently shews himself, and transacts with them; the like Travellers relate concerning divers

other

other parts of the *Barbarous Indies*: and 'tis confidently reported by sober intelligent Men that have visited those places, that most of the *Laplanders*, and some other *Northern* People, are *Witches*. So that 'tis plain that there are National Confederacies with Devils; or, if there were none, I see not how it could be inferr'd thence, that there are no Personal Ones, no more, than that there were never any *Dæmoniacks*, because we know of no Nation universally possessed; nor any *Lunaticks* in the World, because there is no Country of Madmen. But our Author reasons again,

(2.) To this purpose; "That the profligate Persons, who "are obnoxious to those gross Temptations, are fast enough "before; and therefore such a Covenant were needless, and "of no avail to the Tempters Projects.

This Objection I have answered already, in my Remarques upon the IX *Prejudice*, and say again here, that if the Designs of those Evil Spirits were only in general to secure wicked Men to the Dark Kingdom, it might better be pretended that we cannot give a Reason for their Temptations and Indeavours in this kind; But it being likely, as I have conjectur'd, that each of those Infernal Tempters hath a particular property in those he hath seduced and secured by such Compacts, their respective Pride, and tyrannical desire of Slaves, may reasonably be thought to ingage them in such Attempts, in which their so peculiar Interest is concerned.

But I add what is more direct, *viz.* That such desperate Sinners are made more safe to the Infernal Kingdom at large, by such Hellish Covenants and Combinations; since thereby they confirm and harden their Hearts against God, and put themselves at greater distance from his Grace, and his Spirit; give the deepest Wound to Conscience, and resolve to wink against all its Light and Convictions; throw a Bar in the way of their own Repentance, and lay a Train for Despair of Mercy: These certainly are sure ways of being undone, and the Devil we see, hath great Interest in a Project, the success of which is so attended. And we know he made the Assault *de facto* upon our Saviour, when he tempted him to fall down and worship. So that this Learned Author hath but little Reason to object,

(3.) That to endeavour such an express Covenant, is contrary to the Interests of Hell; which indeed are this way so mightily promoted. And whereas he suggests, that a thing so horrid is like to startle Conscience, and awaken the Soul to Consideration and Repentance; I Reply, That indeed considering Man in the general, as a Rational Creature, acted by Hopes and Fears, and sensible of the Joys and Miseries of another World, one would expect it should be so: But then, if we cast our Eyes upon Man as really he is, sunk into Flesh, and present Sense; darkned in his Mind, and governed by his Imagination; blinded by his Passions, and besotted by Sin and Folly; hardned by evil Customs, and hurried away by the Torrent of his Inclinations and Desires; I say, looking on Man in this miserable state of Evil, 'tis not incredible that he should be prevailed upon by the Tempter, and his own Lusts, to act at a wonderful rate of Madness, and continue unconcerned and stupid in it; intent upon his present Satisfactions, without sense or consideration of the dreadfulness and danger of his Condition; and by this, I am furnished also to meet a fourth Objection of our Author's, *viz.*

(4.) That 'tis not probable upon the Witches part, that they will be so desperate to renounce God, and eternal Happiness, and so, everlastingly undo their Bodies and Souls, for a short and trivial Interest; which way of arguing will only infer, That Mankind acts sometimes at prodigious degrees of brutishness; and actually we see it in the Instances of every day. There is not a Lust so base and so contemptible, but there are those continually in our Eyes, that feed it with the Sacrifice of their Eternity, and their Souls; and daring Sinners rush upon the blackest Vilanies, with so little remorse or sense, as if it were their design to prove, that they have nothing left them of that whereby they are Men. So that nought can be inferr'd from this Argument, but that Humane Nature is incredibly degenerate; and the vileness and stupidity of Men is really so great, that things are customary and common, which one could not think possible, if he did not hourly see them. And if Men of Liberal Education, and Acute Reason, that know their Duty and their Danger, are driven by their Appe-

tites, with their Eyes open, upon the most fatal Rocks, and make all the haste they can from their God and their Happiness; If such can barter their Souls for Trifles, and sell Everlasting for a Moment; sport upon the brink of a Precipice, and contemn all the Terrors of the future dreadful day; why should it then be incredible, that a brutish vile Person, sotted with Ignorance, and drunk with Malice, mindless of God, and unconcerned about a future Being, should be perswaded to accept of present delightful Gratifications, without duly weighing the desperate Condition?

Thus, I suppose, I have answered also the Arguments of this Great Man, against the Covenants of Witches; and since a Person of such Sagacity and Learning, hath no more to say against what I defend, and another of the same Character, the ingenious Dr. *Parker*, who directed me to him, reckons these the strongest things that can be objected in the Case, I begin to arrive to an higher degree of Confidence in this belief; and am almost inclined to fancy, that there is little more to be said to purpose, which may not by the improvement of my *Considerations* be easily answered; and I am yet the more fortified in my Conceit, because I have, since the former Edition of this Book, sent to several Acute and Ingenious Persons of my Acquaintance, to beg their Objections, or those they have heard from others, against my Discourse or Relations that I might consider them in this: But I can procure none save only those few I have now discuss'd, most of my Friends telling me, That they have not met with any that need or deserve my notice.

By all this it is evident, that there were *Witches* in Ancient Times under the Dispensation of the Law; and that there were such in the Times of the *Gospel* also, will not be much more difficult to make good. I had a late occasion to say something about this, in a Letter to a Person of the highest Honour, from which I shall now borrow some things to my present purpose.

I Say then, (II.) That there were Compacts with Evil Spirits in those times also, is me-thinks intimated strongly, in that saying of the *Jews* concerning our Saviour, *That he cast out Devils by Beelzebub.* In his return to which, he denies not the Supposition or possibility of the thing in general; but clears himself by an appeal to the Actions of their own Children, whom they would not tax so severely. And I cannot very well understand why those times should be priviledg'd from Witchcraft and Diabolical Compacts, more than they were from Possessions, which we know were then more frequent (for ought appears to the contrary) than ever they were before or since. But besides this, There are Intimations plain enough in the Apostle's Writings of the Being of Sorcery and Witchcraft. St. *Paul* reckons Witchcraft next Idolatry, in his Catalogue of the Works of the Flesh, *Gal.* 5. 20. and the Sorcerers are again joyn'd with Idolaters, in that sad Denunciation, *Rev.* 21. 8. And a little after, *Rev.* 22. 15. they are reckon'd again among Idolaters, Murderers, and those others that are without. And me-thinks the Story of *Simon Magus*, and his Diabolical Oppositions of the Gospel in its beginnings, should afford clear Conviction. To all which I add this more general Consideration,

(3.) That though the New Testament had mention'd nothing of this Matter, yet its silence in such Cases is not Argumentative. Our Saviour spake as he had occasion, and the thousandth part of what he did or said is not Recorded; as one of his Historians intimates. He said nothing of those large unknown Tracts of *America*; nor gave any intimations of as much as the Existence of that Numerous People; much less did he leave Instructions about their Conversion. He gives no account of the Affairs and State of the other World, but only that general one, of the Happiness of some, and the Misery of others. He made no discovery of the *Magnalia* of Art or Nature; no, not of those, whereby the propagation of the Gospel might have been much advanced, *viz.* the *Mystery* of *Printing*, and the *Magnet*; and yet no one useth his silence in these Instances, as an Argument against the Being of things, which are evident Objects of Sense. I confess,

fess, the omission of some of these Particulars is pretty strange, and unaccountable, and concludes our ignorance of the Reasons and Menages of Providence; but I suppose nothing else. I thought, I needed here to have said no more, but I consider, in consequence of this Objection, it is pretended; That as *Christ Jesus* drove the Devil from his Temples and his Altars, (as is clear in the Cessation of Oracles, which dwindled away, and at last grew silent shortly upon his appearance) so in like manner, 'tis said, that he banisht him from his lesser holds in Sorcerers and Witches; which Argument is peccant, both in what it affirms, and in what it would infer. For,

(1.) The coming of the *H. Jesus* did not expel the Devil from all the greater Places of his Residence and Worship; for a considerable part of barbarous Mankind do him publick solemn Homage to this day: So that the very Foundation of the Pretence fails, and the Consequence without any more adoe comes to nothing. And yet besides,

(2.) If there be any credit to be given to Ecclesiastick History, there were Persons possessed with Devils some Ages after Christ, whom the Disciples cast out by Prayer, and the Invocation of his Name: So that Satan was not driven from his lesser Habitations, as soon as he was forced from his more famous Abodes. And I see no reason

(3.) Why, Though Divine Providence would not allow him publickly to abuse the Nations, whom he had designed in a short time after for Subjects of his Son's Kingdom, and to stand up in the Face of Religion in an open affront to the Divinity that planted it, to the great hindrance of the progress of the Gospel, and discouragement of Christian Hopes; I say, Though Providence would not allow this height of insolent Opposition; yet I see not why we may not grant, that God however permitted the Devil to sneak into some private skulking Holes, and to trade with the particular more devoted Vassals of his wicked Empire: As we know that when our Saviour had chased him from the Man that was possessed, he permitted his Retreat into the Herd of Swine. And I might add

(4.) That 'tis but a bad way of arguing, to set up fancied Congruities against plain Experience, as is evidently done by those Arguers, who, because they think that Christ chased the Devil from all his high Places of Worship when he came; that 'tis therefore fit he should have forced him from all his other less notorious Haunts: and upon the imagination of a decency, which they frame, conclude a Fact, contrary to the greatest Evidence of which the thing is capable. And once more

(5.) The consequence of this Imagined *Decorum*, if it be pursued, would be this, that Satan should now be deprived of all the Ways and Tricks of Cozenage, whereby he abuseth us; and Mankind since the coming of Christ, should have been secure from all his Temptations; for there is a greater congruity in believing, that, when he was forced from his haunts in Temples and publick Places, he should be put also from those nearer ones, about us and within us in his daily temptations of universal Mankind; Then, that upon relinquishing those, he should be made to leave all profest Communication and Correspondence with those profligate Persons, whose vileness had fitted them for such Company.

So that these Reasoners are very fair for the denial of all Internal Diabolical Temptations. And because I durst not trust them, I'le crave leave here to add something concerning those.

In order to which, that I may obtain the favour of those wary Persons, who are so coy and shy of their assent, I grant; That Men frequently, out of a desire to excuse themselves, lay their own guilt upon the Devil, and charge him with things of which in earnest he is not guilty: For, I doubt not but every Wicked Man hath Devil enough in his own Nature to prompt him to Evil, and needs not another Tempter to incite him. But yet, that Satan endeavours to further our wickedness, and our ruin by his Inticements, and *goes up and down seeking whom he may devour*, is too evident in the Holy Oracles, to need my Endeavours particularly to make it good; Only those diffident Men cannot perhaps apprehend the manner of the Operation, and from thence are tempted to believe, that there is really no such thing. Therefore I judge

judge it requisite to explain this, and 'tis not unsutable to my general Subject.

In order to it I consider, That Sense is primarily caused by Motion in the Organs, which by continuity is conveyed to the Brain, where Sensation is immediately performed; and it is nothing else, but a Notice excited in the Soul by the impulse of an External Object; thus it is in simple outward Sense: But Imagination, though caused immediately by material Motion also, yet it differs from the external Senses in this, That 'tis not from an Impress directly from without, but the Prime and Original Motion is from within our selves: Thus the Soul it self sometimes strikes upon those Strings, whose Motion begets such and such Phantasms; other-while, the loose Spirits wandring up and down in the Brain, casually hit upon such Filements and Strings, whose Motion excites a Conception, which we call a Fancy or Imagination; and if the Evidence of the outward Senses be shut out by Sleep or Melancholly, in either case, we believe those Representations to be real and external Transactions, when they are only within our Heads; Thus it is in *Enthusiasms* and *Dreams*. And besides these Causes of the Motions which stir Imagination, there is little doubt, but that Spirits, Good or Bad, can so move the Instruments of Sense in the Brain, as to awake such Imaginations as they have a mind to excite; and the Imagination having a mighty influence upon the Affections, and they upon the Will and external Actions, 'tis very easie to conceive how Good Angels may stir us up to Religion and Vertue, and the Evil Ones tempt us to Lewdness and Vice, *viz.* by Representments that they make upon the Stage of Imagination, which invite our Affections, and allure, though they cannot compel our Wills.

This I take to be an intelligible account of Temptations, and also of Angelical Incouragements; and perhaps this is the only way of immediate Influence that the Spirits of the other World have upon us. And by it, 'tis easie to give an account of *Dreams*, both *Monitory* and *Temperamental*, *Enthusiasms*, *Fanatick Extasies*, and the like, as I suggested.

This

This may suffice for an Answer to the first Pretence, *viz.* the *silence* of the *Gospel* in this Matter. I come to examine the other, That

(2.) M*Iracles are ceast, therefore the presumed Actions of Witchcraft, are Tales and Illusions.*]

To make a due return to this, we must consider a great and difficult Problem, which is, *What is a Real Miracle?* And for answer to this weighty Question, I think,

(1.) That it is not the strangeness, or unaccountableness of the thing done simply, from whence we are to conclude a Miracle. For then we are so to account of all the *Magnalia* of Nature, and all the Mysteries of those honest Arts which we do not understand.

Nor (2.) is this the *Criterion* of a Miracle, That it is an Action or Event beyond all Natural Powers; for we are ignorant of the Extent and Bounds of Nature's Sphere and Possibilities: And if this were the character and essential Mark of a Miracle, we could not know what was so; except we could determine the extent of *natural causalities*, and fix their Bounds, and be able to say to Nature, *Hitherto canst thou go and no further*; And he that makes this his measure whereby to judge a Miracle, is himself the greatest Miracle of Knowledge or Immodesty. Besides, though an Effect may transcend really all the Powers of meer Nature; yet there is a world of Spirits that must be taken into our Account. And as to them also I say,

(3.) Every thing is not a Miracle that is done by Agents Supernatural. There is no doubt but that Evil Spirits can make wonderful Combinations of Natural Causes, and perhaps perform many things immediately which are prodigious, and beyond the longest Line of Nature: but yet these are not therefore to be called Miracles; for, they are *Sacred Wonders*, and suppose the *Power* to be *Divine*. But how shall the Power be known to be so, when we so little understand the Capacities, and extent of the Abilities of Lower Agents? The Answer to this Question will discover the *Criterion* of *Miracles*, which

which must be supposed to have all the former Particulars; *viz.* They are *unaccountable*, *beyond the Powers of meer Nature*, and *done by Agents Supernatural*; And to these must be superadded.

(4.) That they have peculiar Circumstances that speak them of a Divine Original. Their mediate Authors declare them to be so, and they are always Persons of Simplicity, Truth, and Holiness, void of Ambition, and all secular Designs: They seldom use Ceremonies, or Natural Applications, and yet surmount all the Activities of known Nature: They work those wonders, not to raise admiration, or out of the vanity to be talkt of; but to seal and confirm some Divine Doctrine or Commission, in which the Good and Happiness of the World is concern'd, I say, by such Circumstances as these, Wonderful Actions are known to be from a Divine Cause; and that makes and distinguisheth a Miracle.

And thus I am prepared for an Answer to the Objection, to which I make this brief return, That though *Witches* by their Confederate Spirit do those odd and astonishing things we believe of them; yet are they no Miracles, there being evidence enough from the badness of their Lives, and the ridiculous Ceremonies of their Performances, from their malice and mischievous Designs, that the *Power* that works, and the end for which those things are done, is not Divine but Diabolical. And by singular Providence they are not ordinarily permitted, as much as to pretend to any new Sacred Discoveries in Matters of Religion, or to act any thing for confirmation of Doctrinal Impostures. So that whether *Miracles* are ceased or not, these are none. And that such Miracles as are only strange and unaccountable Performances, above the common Methods of Art or Nature, are not ceas'd, we have a late great evidence in the famous *GREATREX*; concerning whom it will not be impertinent to add the following account, which I had in a Letter from Dr. *G. R.* Lord Bishop of *D.* in the Kingdom of *Ireland*, a Person of singular Piety and Vertue, and a great Philosopher. He is pleased thus to write;

"The

"THe great discourse now at the Coffee-Houses, and every-
" where, is about M. *G.* the famous *Irish Stroker*, con-
" cerning whom it is like you expect an account from me.
" He undergoes various Censures here, some take him to be
" a *Conjurer*, and some an *Impostor*, but others again adore
" him as an *Apostle*. I confess, I think the Man is free from
" all Design, of a very agreeable Conversation, not addicted
" to any Vice, nor to any Sect or Party; but is, I believe, a
" sincere *Protestant*. I was three weeks together with him at
" my Lord *Conwayes*, and saw him, I think, lay his hands up-
" on a thousand Persons; and really there is something in it
" more than ordinary: but I am convinc'd it is not miracu-
" lous. I have seen pains strangely fly before his hand till he
" hath chased them out of the Body, Dimness cleared, and
" Deafness cured by his Touch; twenty Persons at several
" times in Fits of the *Falling-Sickness*, were in two or three
" minutes brought to themselves, so as to tell where their
" pain was; and then he hath pursued it till he hath driven
" it out at some extream part: *Running Sores* of the *Kings-*
" *Evil* dried up, and *Kernels* brought to a *Suppuration* by his
" hand: grievous *Sores* of many months date, in few dayes
" healed: *Obstructions*, and *Stoppings* removed; *Cancerous*
" *Knots* in the Breast dissolved, *&c.*

"But yet I have many Reasons to perswade me, that no-
" thing of all this is Miraculous; He pretends not to give Te-
" stimony to any Doctrine; the manner of his Operation
" speaks it to be natural; the Cure seldom succeeds without
" reiterated Touches, his Patients often relapse, he fails fre-
" quently, he can do nothing where there is any decay in Na-
" ture, and many Distempers are not at all obedient to his
" Touch. So that I confess, I refer all his Vertue to his
" particular Temper and Complexion, and I take his Spi-
" rits to be a kind of *Elixir*, and *Universal Ferment*; and that
" he cures (as Dr. *M.* expresseth it) by a *Sanative Conta-*
" *gion*.

This, Sir, was the first Account of the *Healer* I had from that Reverend Person, which with me signifies more than the Attestations of multitudes of ordinary Reporters; and no doubt but it will do so likewise with all that know that excellent Bishop's singular Integrity and Judgment. But besides this, upon my inquiry into some other Particulars about this Matter, I received these further Informations from the same Learned Hand.

"As for M. *G.* what Opinion he hath of his own Gift, and "how he came to know it? I Answer, He hath a different ap- "prehension of it from yours and mine, and certainly be- "lieving it to be an *immediate Gift* from Heaven; and 'tis no "wonder, for he is no Philosopher. And you will wonder "less, when you hear how he came to know it, as I have of- "ten received it from his own Mouth. About three or four "years ago he had a strong impulse upon his Spirit, that con- "tinually pursued him from what-ever he was about, at his "Business, or Devotion, alone, or in company, that spake to "him by this inward Suggestion, [*I have given thee the Gift of* "*Curing the Evil.*] This Suggestion was so importunate, that "he complained to his Wife, That he thought he was haun- "ted: She apprehending it as an extravagancy of Fancy; "but he told her he believed there was more in it, and was re- "solved to try. He did not long want opportunity. There "was a Neighbour of his grievously afflicted with the *Kings-* "*Evil*, He stroked her, and the Effect succeeded. And for "about a twelve-month together he pretended to cure no "other Distemper. But then the *Ague* being very rife in the "Neighbourhood, the same Impulse after the same manner "spoke within him, [*I have given thee the Gift of curing the* "*Ague*;] and meeting with Persons in their Fits, and taking "them by the Hand, or laying his Hand upon their Breasts, "the *Ague* left them. About half a year after the accustomed "Impulse became more general, and suggested to him, [*I* "*have given thee the Gift of Healing*;] and then he attempted "all Diseases indifferently. And though he saw strange

"Effects,

"Effects, yet he doubted whether the Cause were any Vertue "that came from him, or the Peoples fancy: To convince him "of his incredulity, as he lay one night in Bed, one of his "Hands was struck dead, and the usual Impulse suggested to "him to make tryal of his Vertue upon himself, which he "did, stroking it with his other hand, and then it immedi- "ately returned to its former liveliness. This was repeated "two or three Nights (or Mornings) together.

"This is his Relation, and I believe there is so much since- "rity in the Person, that he tells no more than what he believes "to be true. To say that this Impulse too was but a result "of his temper, and that it is but like Dreams that are usual- "ly according to Mens Constitutions, doth not seem a proba- "ble account of the *Phænomenon*. Perhaps some may think "it more likely, that some *Genius* who understood the Sana- "tive Vertue of his Complexion, and the readiness of his "Mind, and ability of his Body to put it in execution, might "give him notice of that which otherwise might have been "for ever unknown to him, and so the *Gift of God* had been "to no purpose.

This is my Learned and Reverend Friend's Relation: I shall say no more about it but this, That many of those Matters of Fact, have been since critically inspected and examined by several sagacious and wary Persons of the *Royal Society*, and other Very Learned and Judicious Men, whom we may suppose as unlikely to be deceived by a contrived Imposture, as any others whatsoever.

I Have now done with my *Considerations* on this Subject, which I could wish were less seasonable and necessary than I have reason to believe they are: But, alas! we live in an Age wherein *Atheism* is begun in *Sadducism*: And those that dare not bluntly say, *There is no God*, content themselves, for a fair step and Introduction, to deny there are *Spirits*, or *Witches*. Which sort of *Infidels*, though they are not so ordinary among the meer Vulgar, yet are they numerous in a little higher rank of Understandings. And those that know any thing of the World, know, That most of the small Pretenders to *Wit*, are generally deriders of the belief of *Witches* and *Apparitions*: Which were it only a slight, or meer speculative Mistake, I should not trouble my self or them about it. But I fear this Error hath a Core in it worse than Heresie: And therefore how little soever I care what Men believe or teach in Matters of Opinion, I think I have reason to be concern'd in an Affair, that toucheth so near upon the greatest Interests of Religion. And really I am astonisht sometimes to think into what a kind of Age we are fallen, in which some of the greatest Impieties are accounted but *Buggs*, and *terrible Names*, *Invisible Tittles*, *Piccadillo's*, or *Chimera's*. The sad and greatest Instances, are **Sacrilege, Rebellion**, and **Witchcraft**. For the two former, there are a sort of Men (that are far from being profest Enemies to Religion) who, I do not know, whether they own any such Vices. We find no mention of them in their most particular Confessions, nor have I observed them in those Sermons that have contained the largest Catalogues of the Sins of our Age and Nation. *'Twere dangerous to speak of them as Sins, for fear who should be found guilty*. But my Business at present is not with these, but the other, **Witchcraft**, which I am sure was a Sin of Elder Times; and how comes it about that our Age, which so much out-does them in all other kinds of Wickedness, should be wholly innocent in this? That there may be *Witches* and *Apparitions* in our days, notwithstanding the Objections

of

of the *Modern Sadduce*, I believe I have made appear in the foregoing *Considerations*; in which I did not primarily intend direct *Proof*, but *Defence*.

Against which if it should be Objected, That I have for the most part used only Supposals, and conjectural Things in the vindication of the Common Belief, and speak with no point-blank assurance, in my particular Answers, as I do in the General Conclusion. I need only say, That the Proposition I defend is Matter of Fact, which the Disbelievers impugne by alledging, That *it cannot be*; or, *it is not likely*: In return to which, if I shew, how those things may be, and probable, notwithstanding their Allegations, though I say not down-right that they are in the particular way I offer; yet 'tis enough for the Design of Defence, though not for that of Proof: for when one saith a thing *cannot be*, and I tell him how possibly it may, though I hit not the just manner of it; I yet defeat the Objection against it, and make way for the evidence of the thing *de Facto*.

But after all this, I must confess there is one Argument against me, which is not to be dealt with, *viz.* A mighty Confidence grounded upon nothing, that *swaggers*, and *Huffs*, and *swears* there are no *Witches*. For such Philosophers as these, let them enjoy the Opinion of their own Superlative Judgments, and enter me in the first rank of Fools for crediting my Senses, and those of all the World, before their sworn Dictates. If they will believe in *Scott*, *Hobbs*, and *Osborne*, and think them more infallible than the Sacred Oracles, the History of all Ages, and the full experience of our own, who can help it? They must not be contradicted, and they are resolved not to be perswaded. For this sort of Men, I never go about to convince them of any thing. If I can avoid it, I throw nothing before them, lest they should turn again and rend me. Their Opinions came into their Heads by chance, when their little Reasons had no notice of their entrance, and they must be let alone to go out again of themselves the same way they entred. Therefore not to make much noise to disturb these *infallible Huffers*, (and they cannot hear a little

tle for their own) I softly step along, leaving them to believe what they think.

I have only this further to add, That I appear thus much concerned for the justification of the belief of *Witches*, because it suggests palpable and current Evidence of our *Immortality*. For though we have reasonable Evidence enough from the Attributes of God, the *Phænomena* of Providence, and the Nature of our Souls, to convince any, but those who will stupidly believe, that they shall die like Beasts, that they may live like them: Yet the Philosophick Arguments that are produced for the Article, though very cogent, are many of them speculative and deep, requiring so great an attention and sagacity, that they take no hold upon the whifling Spirits that are not used to Consider, nor upon the common sort that cannot reach such Heights: But they are both best convinced by the Proofs that come nearest the Sense, which indeed strike our Minds fullest, and leave the most lasting Impressions; whereas high Speculations being more thin and subtile, easily slide off, even from Understandings that are most capable to receive them. This is one of the Main Reasons that engaged me on this Argument, because it affords considerable Evidence of that great Truth, which every Christian ought to be solicitous to have made good.

And really if we compute like Men, and do not suffer our selves to be abused by the Flatteries of Sense, and the deceitful Gayeties that steal us away from God, and from our selves, there is nothing can render the thoughts of this odd Life tollerable, but the expectation of another: And Wise Men have said, That they would not have a Moment, if they thought they were not to live again. This perhaps some may take to be the discontented Paradox of a Melancholick, vext and mean Condition, that is pinched by the straightness of Fortune, and envies the Heights of others Felicity and Grandeur; But by that time those that judge so, have spent the Heats of Frolick Youth, and have past over the several Stages of Vanity; when they come to sit down, and

make

make ſober reflections upon their Pleaſures and Purſuits, and ſum up the Accompt of all that is with them, and before them, I doubt not but their conſidering Thoughts will make *Solomon*'s Concluſion, and find, that 'tis but a miſery to live, if we were to live for nothing elſe. So that if the content of the preſent Life were all I were to have for the hopes of Immortality, I ſhould even upon that account be very unwilling to believe that I was mortal: For certainly the Pleaſures that reſult from the Thoughts of another World in thoſe, that not only ſee it painted in their Imaginations, but feel it begun in their Souls, are as far beyond all the titillations of Senſe, as a real laſting Happineſs is beyond the deluſive Images of a Dream. And therefore they that think to ſecure the injoyment of their Pleaſures, by the infamy of our Natures, in the overthrow of our future Hopes, indeavour to damm up the Fountain of the fulleſt and cleaneſt Delights; and ſeek for limped Waters in the Sinks and Puddles of the Streets.

But this would afford Matter for another Diſcourſe, into which I muſt not digreſs, but here make an end of this.

Anti-fanatical Religion,

AND

Free Philosophy.

In a Continuation of the

NEW ATLANTIS.

Essay VII.

Essay VII.

The Summe of My Lord Bacon's NEW ATLANTIS.

WE parted from *Peru*, with design to pass to *China* and *Japan* by the South Sea: and after we had been long driven up and down by contrary Winds, and wandred in the greatest Wilderness of Waters in the World, without the least hopes of making any Land, in that immense undiscover'd Abyss, that was beyond both the *Old* World, and the *New*; it pleased God to bring us into the Harbour of a most *Angelical* Country, that lay hid in the greatest Ocean in the Universe.

We found there a People of singular Goodness and Humanity, who received us with most affectionate kindness, and provided for us with a Parent-like Care and Indulgence: We were lodg'd in a fair Pile of Buildings, call'd the *Strangers House*, appointed for such Occasions, and there we had all things, both for our Whole and Sick, that belonged to Charity and Mercy. The *Governour* of that House (a most obliging and benign Person) acquainted some of our number with divers remarkable Matters concerning the Kingdom of *BENSALEM* (so it was call'd); Particularly, with the strange entrance and beginning of Christianity there, and the excellent Foundation of *SOLOMON*'s House, a *Royal*

Society erected for Enquiries into the Works of God: After we had been there a little while, one of the *Fathers* of that House came to the Town where we were. He entred in State; and within few days having had notice of us, he order'd that one of our Company should be brought to him: The rest chose me to wait on the great Man, which I did, and was receiv'd by him with much goodness; He gave me a particular account of the Foundation of *Solomon's House*, and the State of *Philosophy* in *Bensalem*, granting permission it should be declared to the World. Accordingly it was publisht by *Verulamius*, in his History call'd the *NEW ATLANTIS*; and thus far his Account went.

But now I shall enter upon a Relation of things, of which yet there hath been no News from *Bensalem*.

On the third day after I had been with the Father of *Solomon's House*, a Servant came to me from the Governor of ours, just as we had dined, to desire me to spend the Afternoon with him: I received the invitation with a chearful respect, and went immediately with the Officer to attend his Lordship; He led me through the Garden of our House into another, the largest and most beautiful I ever saw; It was encompast with a lofty Stone-Wall; The Stone were blue, naturally streakt with green. It had Mounts, Grotto's, and Summer-Houses, very pleasant and magnificent; The Walks were large, planted with Ever-greens, and the Fruit-Trees (of all sorts that we have, and many that we have not) set in the old *Quincuncial*, *Lozenge* Figures, after the manner of the ancient hanging Gardens of *Babylon*; It had Wildernesses, Ponds, Aviaries, and all things else that can render such a place agreeable. I could have dwelt in this Paradise; but the Servant led me on into a square Cloyster'd Court, having handsome Buildings on all sides, fenced on the South with a tall Grove of Cedar: The Cloysters were paved with red and green Marble, and supported with pollisht Pillars of a speckled Stone, very clear and shining; Hence we went into a fair spacious Hall adorned with large Maps of all sorts; here were some Servants decently clad, they were playing at Chess; as soon as I entred, they arose, and saluted me very civilly with

a modest sweetness in their looks, that seem'd very obliging. My Guide conducted me up Stairs into a noble Gallery, hung with most excellent Pictures of Famous Men, and Philosophers; and, at which I was much surprized, of some that I had seen. He left me here, to give the Governor notice that I was come; and presently I saw him enter, with a mild chearfulness, mixt with a manly gravity in his Countenance: He had on a long Robe of Purple Silk, and a kind of Turban on his Head of the same colour, which had a Star of Gold wrought on it, worn just before: He imbraced me with much affection, expressing great satisfaction in the opportunity of entertaining me alone: He enquired after the welfare of our People, and whether we wanted any Accommodation, either for our Whole or Sick; I bowed with a low reverence, and answer'd, That we wanted nothing, but an occasion to speak our acknowledgments of the Bounty and Humanity of that blessed Place; and particularly to express how much we were oblidg'd to his Lordships generous favours: He replyed smiling, That Complements were not in use in *Bensalem*; and taking me by the hand, he led me into an handsome square Chamber wainscotted with Cedar, which fill'd the Room with a very grateful odour: It was richly painted, gilt, and full of Inscriptions in Letters of Gold: He sate him down on a Couch of Green Velvet, and made me take my place by him.

After some more particular inquiry into the condition of our Sick, of whom I gave him an account, he told me, That the *Father* of *Solomon's House* commanded him to acquaint me with the *state* of *Religion* in *Bensalem*, as himself had with the condition of *Philosophy* there; and that he would have done this too, but that the urgent Business of the Publick State, which lay upon him, would not afford him time; I rose up at these words, and answered with a low submission, That I knew not in what terms to express my sense of the Father's Condescention and Goodness; and that his excellent Relation of the state of *Philosophy*, and its ways of improvement in that Kingdom, had inflamed me with desire to know what I might, concerning the Affairs of its *Religion*, since the so miraculous plantation of Christianity in it; And particularly, *Whether it had kept its ancient Purity*, and *Simplicity in that Realm*;

Realm; which was lost in most other places? This Question, replyed He, (making me sit down again by him) I shall fully answer in the things I have to say to you; and having paused a little to settle his Thoughts, he began his *Narrative* in this manner.

AFTER the Conversion of this Land by the *Evangelism* of St. *Bartholomew*, (of which you have heard) Religion underwent some Revolutions, that I shall not mention; But take my ground from the *last*, which hapned no very long time since: For the understanding which, you must know, That upon the South-West of this place, in the unknown Ocean also, lies an Island, famous for the rise it gave to a very spreading Sect in Religion: From this unfortunate Country, came certain Zealous Persons hither, that pretended to extraordinary *Illuminations*, and to more *purity*, *strictness*, and *Spirituality*, than other Christians; They taught, That *our Rites* and *Government* were *Superstitious* and *Anti-christian*; That we wanted *Pure Ordinances*, and *Gospel-Worship*; That our *Good Works*, and Christian *Vertues*, were nothing worth; That the *best* of our People were but *Formalists* and meer *moral* Men; That our *Priests* were *uninlightned*, strangers to the *Power* of *Godliness*, and *Mysteries* of *Religion*; and that there was a necessity of a *thorow Godly Reformation* of our *Government*, and *Worship*.

The Men at first were only gazed upon by our People, as strange Persons; But at length, by the vehemence of their Zeal, and glory of their Pretences, they began to make impression on some, who had more *Affection* than *Judgment*: By *them*, and the continuance of their own restless Importunities, they wrought upon others; And in process of time and endeavour, through the secret Judgment and Permission of God, prevail'd so far, that the great Body of the People, especially of those that were of *warm* and *Enthusiastick* Tempers, was leaven'd (more or less) with their Spirit and Doctrines.

Here he stopt a little, and then said; 'Tis wonderful to consider how some Ages and Times are dispos'd to changes; some to one sort of alteration, and some to another: In *this*

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Age, one Sect and Genius spreads like Infection, as if the publick Air were poisoned with it; and again, in *that* those same Doctrines and Fancies will not thrive at all, but die in the hands of their Teachers; while a contrary, or very different sort, flies and prevails mightily: There is something extraordinary in this, the contemplation of which would be noble Exercise, but not for our present purpose: 'Tis enough to note, That the Age at the coming of those Seducers hither, was inclined to *Innovation*, and to such particular sorts of it: So that in few years the generality of the Zealous, and less considerate, were tainted with those *new* and *gay* Notions; And so possest they were with the conceit of the divineness and necessity of their *Fancies* and *Models*, that they despised and vilified the *Ecclesiastical* Government, and *Governors*, and vehemently assaulted our most excellent *SALOMONA*, the King of this Realm, with continual Petitions and Addresses, to establish them by Law, and to change the whole Constitution of Religion, in complyance with *their* Imaginations: But he was a Wise and Religious Prince; He saw the folly and danger of such Alterations, and endeavour'd, by all the ways of Lenity and Goodness, to allay the heat of their unreasonable Prosecutions: But *they* being the more emboldned by this *moderate* Course, and *provoked* by the little inclination the good King shew'd to their *New Models*, broke out, after some less violent struglings, into down-right *Rebellion*, which after many Revolutions, too long to be mention'd *now*, succeeded so far at last, that the Pious Prince was depos'd and murder'd; the Government usurp'd by the prevailing Tyrants: And, not to mention the disorders of the *Civil* State that follow'd, the *Ecclesiastical* was most miserable. For *now*, all the Sects that have a Name in History in any part of the known World, started up in this Church, as if they had all been transplanted hither: They arose as it were out of the Earth, which seem'd to bring forth nothing but *Monsters*, full grown at their Birth, with Weapons in their hands ready for Battel; and accordingly they fell one upon another with strange rage and fierceness. For having torn and destroyed the Ancient Doctrine and Government, every one contended to set up its *own*, and to have its beloved Opinions and Models,

dels entertain'd and worship'd, as the infallible Truths and Ways of God: So that all places were fill'd with *New Lights*, and those Lights were so many *Wild-Fires*, that put all into *Combustion*. We saw nothing of Religion but glaring Appearances, and Contention about the Shells and Shadows of it. It seem'd to run out wholly into Chaff and Straw; into *Disputes* and *Vain Notions*; which were not only unprofitable, but destructive to Charity, Peace, and every pious Practice. All was Controversie and Dissention, full of Animosity and Bitterness; For though they *agreed* in some common Falshoods and Follies, yet *that* made no *Union*; every dissent in smallest Matters was ground enough for a Quarrel and Separation. But *these* things were *common* to them.

All hated the *former Constitutions*; All cried up their own Clan, as the *only Saints*, and *People* of *God*: All vilified *Reason* as *Carnal*, and Incompetent, and an *Enemy* to the things of the Spirit: All had confident, false, and perverse Notions of the Divine *Attributes*, and Counsels; All decry'd *Vertue* and *Morality* as a dull thing, that was nothing in the account of God. All fill'd their Discourses with the words of *Light*, *Faith*, *Grace*, the *Spirit*; and all talk'd in set *Phrases*, phancifully and ignorantly about them: All pretended to great *Heights* in *Knowledge*, though that consisted in nothing but an ability to repeat those Phrases of their Sect, like Parrots: All talk'd of their extraordinary *communion* with *God*, their *special Experiences*, *Illuminations*, and *Discoveries*; and accordingly all demean'd themselves with much sawciness and irreverence towards God, and contempt of those that were not of the same phantastical Fashion: All were *zealous* in their proper *set* of *Doctrines* and *Opinions*; and all bitterly oppos'd and vilified every different Judgment. *These* are some of the main things that made up the *common* Nature of the Parties: In *particulars*, as I have said, they were infinitely at variance.

While things were in this condition, some of our Missionaries in Forreign Parts returned, and among the other Books, and Rarities from the World, they brought the Works of some of your Episcopal Divines, and other Learned Men, particularly those of *Hammondus*, *Taylorus*, *Grotius*, &c. Such of

of them that were written in English, they translated into Latin, the rather because they judg'd those Discourses very seasonable and proper to obviate the Evil Genius of the unhappy Age. As soon as they came abroad in the general Language, they were read by the sober sort of our Divines with great approbation and acceptance; and from them they had Light and Advantage for the detecting the Follies and Extravagancies of the Times.

For my part, I was then a Student in the University, and therefore shall chuse to relate what effect those Writings had there, and particularly upon divers of my mine own Acquaintance, who are now very considerable in this Church, and have done great Service in it.

It was one Advantage that the Young Academians had from that unhappy Season, that they were stirr'd up by the general Fermentation that was then in Mens Thoughts, and the vast variety that was in their Opinions, to a great activity in the search of sober Principles, and Rules of Life. I shall not undertake to describe the Spirit and Temper of all the Theologues and Students of those Times, but shall give you an account of some that I knew, who have been very useful to the Church in confuting and exposing the Fanatical Principles and Genius, and who derived much of their Spirit and Doctrines from those excellent Authors of your Country.

Here I told the Governor that things had been lately also in our parts much after the manner he had described the Condition of theirs; and that therefore I was very desirous to know by what Ways and Doctrines the People were reduced to a better temper. I said also, that I had relation to one of our Universities, and on that account likewise was sollicitous to understand how those Academical Divines were formed; and what they did when they came abroad.

He answer'd, that he was ready to gratifie my desires; but then, said he, I would not have you think that I magnifie the Persons I shall describe to you, or their Learning and Performances, above all our other Clergy: No, thanks be to God, we have numbers of Excellent Men, famous for their Piety, Learning, and Usefulness in the Church: of whom, by reason of my distance, and constant Imployments in this

place, I have no perſonal knowledge; and therefore I chooſe to ſpeak only of thoſe that were bred in the Univerſity about mine own Time; and the rather, that you may obſerve the Providence of God in raiſing Men ſo ſerviceable to his Church in the very worſt of Days. Having premis'd which, he fell immediately to an account of their Preparations in the Univerſity, and thence to a Relation of their Performances after. Of the former he ſpoke thus;

THoſe Divines, of whom I have undertaken to ſay ſomething, went through the uſual courſe of Studies in the Univerſity, with much applauſe and ſucceſs: But did not think themſelves perfect, as ſoon as they were acquainted with the knowledge contain'd in *Syſtems:* No, they paſt from thoſe Inſtitutions, to converſe with the moſt *Ancient* and *Original* Authors in all ſorts of profitable Learning. They begun at the top, with the Philoſophers of the Eldeſt Times, that were before the days of *Ariſtotle:* They peruſed the *Hiſtories* of their *Lives* and *Doctrines*, and then read all the remains of them that are extant: They conſider'd their Principles, only as *Hypotheſeis*, with Minds *free* and *untainted:* They ſtudied them to know the ſeveral Scheams of their Opinions, without paſſing Judgments *yet*, upon their *Truth*, or *Falſhood*. They read *Plato*, and convers'd *much* with that *Divine* Philoſopher: They acquainted themſelves with *Ariſtotle*, his great Scholar; and by his *Original* Writings, they found how much he had been miſrepreſented and abuſed by his *Commentators*, (eſpecially by thoſe of later Times) and ſaw how different a thing *Ariſtotelian Philoſophy* was in his *own* Works, from *that* which they had met in *compendiums*, and the *Diſputing* Books that pretended to it: They made themſelves intimate with *Plutarch* and *Cicero:* And dealt much with the other chief Writers, both *Greeks* and *Romans:* By which means, they were well inſtructed in the *Hiſtory* of *Philoſophy*, and the various Thoughts and Opinions of the greateſt Men among the Ancients.

But yet, notwithſtanding this Converſation with thoſe Sages, They were not ſo *pedantically*, and *ſuperſtitiouſly fond* of *Antiquity*, as to ſit down *there* in contempt of all *later*

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Helps and Advancements. They were sensible, That Knowledge was still *imperfect*, and capable of further growth, and therefore they looked forward into the *Moderns* also, who about their time, had imployed themselves in discovering the Defects of the Ancients, in reviving some of their neglected Doctrines; and advancing them by new Thoughts and Conceptions: They read, and consider'd all sorts of *late* Improvements in *Anatomy*, *Mathematicks*, *Natural History*, and *Mechanicks*, and acquainted themselves with the *Experimental Philosophy* of *Solomon's House*, and the other Promoters of it. So that there was not any valuable Discovery made, or Notion started in any part of *Real Learning*, but they got considerable knowledge of it. And by this *Universal* way of proceeding, They furnish'd their Minds with great *variety* of *Conceptions*, and rendred themselves more capable of judging of the *Truth*, or *likelyhood* of any propos'd *Hypothesis*. Nor did they content themselves with *Reading*, and the knowledge of *Books*, but join'd *Contemplation*, and much thoughtfulness with it: They exercised their Minds upon what they read; They consider'd, compar'd, and inferr'd: They had the felicity of *clear* and *distinct thinking*, and had large compass in their Thoughts. By *reading* they rendred their Understandings *full*; and by *Meditation* they kept that fulness from being *disorderly* and *confus'd*.

Being thus prepared, They addrest themselves to the more *close*, particular, and thorow study of *Divinity*: They thought it not enough to read a few *Systems*, and bundles of Novel Opinions, to understand the current *Orthodoxy* of the Times, or to gain the faculty of speaking to the People in the *taking Tone* and *Phrase*, (things that made up the Divines of that Age): But enquired into the state of Religion in former days: They read the *Histories* of the Church, and applyed themselves to a careful perusal of the *Fathers* of the *three first* Centuries: In *them* they looked for the Doctrine and Practices that were in the *beginning*: They consider'd, that Religion was most *pure* in those *Primitive* Times of *Holiness* and *Martyrdom*; and that by knowing what was the *belief* and *use* then, they might be enabled to judge better of the more *Modern* Ways and Opinions: That though *other* Know

ledge *grew*, and was much advanced by Time, yet *Divinity* was in its *perfection*, in the days of the *Apostles*, and *nearest* Ages to them; and had still been *degenerating* (more or less), in following Times. That it was therefore best to enquire after the *old Ways*, and to take the Measures of *Faith* and *Practice*, from *Primitive Doctrine* and *Usage*; and accordingly they endeavoured to form *theirs*. They convers'd with the Works of your Excellent Writers, whom I mention'd, and other Learned Men, whom Providence raised about that Season, to direct the World to those *eldest*, *best* Patterns. They read also the *Histories*, and observ'd the *growth* of *Sects*: They examin'd the Books of the chief reputed *Hereticks*, and consider'd the Arguments where-with they endeavour'd to establish their Opinions. They descended even to the Wild Scribbles and Contentions of the several Parties in our distracted Land; They acquainted themselves thoroughly with their *Spirit*, *Principles*, *Phrases*, and *ways* of *Reasoning*; as judging, that none could deal effectually in the exposing and confuting any Sect, but those who well understood it. Besides all this, They directed their Studies (many of them) to the *Jewish Learning*, That they might be instructed in the Rites, Opinions, and Usages of that People, for the better understanding of many things in the Scripture that relate unto them. They enquired into the *Reasonableness* of the great Principles of *Religion*, and particularly of the *Christian*; and provided themselves thereby to deal with *Atheists*, *Infidels*, and *Enthusiasts*, with which that Age abounded. I could say much more, but this is enough to shew that these Men were qualified to do something in the World.

Here I interrupted the Relation a little, and said, That it seem'd to me that such *Preparations* should have taken up the better part of their Lives, and not have left much time for Action. He answer'd, That *Diligence*, *Meditation*, and a *right Method* of Studies would go very far, and do mighty Matters in an indifferent Time; and that he who knew the *shortest* cut, and went constantly on, would pass over a considerable Desart in a few days, while another that loyter'd, or was ignorant of the way, might wander all his Life in it to little purpose. That those Men took the direct

rect Course, and had the best Guides, the choice Books of all sorts; one anothers excellent Company, and improving Converse. That they spent no unprofitable time, among the Voluminous Triflers; and in the confused Rubbish of Learning. That they went straight on towards their end, without diverting to bie and impertinent Matters. They that made even their most common Conversations to serve them, in their study of *Humane Nature*, the *Inclinations* and *Passions* of Men: And even the *wildness* and humours of *Sects* afforded them instruction in the nature of *Enthusiasm*, and *Superstitions* of all kinds. So that their Understandings and Observations were advanced *far*, while their years were not *many*; and they had the happy Conjunction of the *Judgment* of *Ripe Age*, with the *vigour* of *Youth*. I bowed to declare my satisfaction, and He went on.

IT will be time now, after the Discourse of their *Preparations*, to let you know what they *did*; and what were the Effects of these *promising beginnings*. This I shall do, By representing

(1.) *Some things* that were more *general*.
(2.) Their *particular Endeavours* in the Affairs of *Religion*.
(3.) A more full account of their Genius, and Thoughts, in some main Parts of *Learning*.

I BEGIN with their more *General Actions* and *Declarations* of their Thoughts.

ONe of the first things they *did*, was, to deliver their *own* Minds (and to endeavour the same for *others*) from the *Prepossessions*, and *Prejudices* of *Complexion*, *Education*, and implicit *Authority*; Asserting the Liberty of Enquiry, and thereby freeing their Reasons from a base and dishonourable Servitude, and vindicating this just Right of Humane Nature. For though they knew, That *Green Youth*, and *Vulgar* Inquirers, ought not pragmatically to call their Teachers to account for their Doctrines, or to venture upon deep Speculations

culations without assistance; Yet they thought, that *Men* who were bred in the way of Study, had first submissly heard the Opinions of their Instructors, and been well acquainted with their Dictates, who were arriv'd to maturity of Understanding, and a good capacity to seek after Truth; might at length be permitted to *judge for themselves*; that *so* they might *choose*, like *reasonable* Creatures, and not have their Principles *brutishly obtruded* on them. This they saw was a *natural* Right, and that the Tyrannical Custom of over-ruling and suppressing it, had held the greatest part of Mankind in fatal Chains of Ignorance and Error.

Here, I say, They begun, and taught, That all lovers of Truth, whose Judgements were competently matur'd, ought to free their Minds from the Prejudices of Education, and usurping Authorities; that is, so far, as not to conclude any thing certainly true, or false, *meerly* on the account of *those Impressions*: But to *try all things*, as Scripture and Reason require, and incourage us; and to suspend the giving up our *full*, and resolv'd assent to the Doctrines we have been taught, till we have impartially consider'd and examin'd them *our selves*. That in our Researches, we ought to retain a Reverence for *Antiquity*, and *venerable Names*; but not *blindly* to *give up* our Understandings to them, against clear Evidence of the Divine Oracles, or Impartial Reason. That when other Considerations, on both sides, were *equal*, the Inducements of *old Belief*, and *reverend Authorities* ought to determine us to a *probable* assent on *that* side: But when God's Word, or our Faculties stood on the *other*, we ought not to be enclin'd.

Thus they modestly asserted the *Liberty* of *Judgment*, and bounded it with so much Caution, that no Prejudice could arise to Legal Establishments from that freedom: For they allow'd it not to *immature* Youth; or to *illiterate* or *injudicious* Men, who are not to be *trusted* to conclude for themselves in things of *difficult* Theory: But advised *such*, to submit to their Instructors, and so practise the plain things they are taught, without busie intermedling in Speculative Opinions, and things beyond their reach. Such a *Liberty* of *Judgment* as *this* they taught, and *such* was necessary for the Age, in which

which the Minds of Men were inthrall'd by the Masters of Sects, and the Opinions then stil'd *Orthodox*, from which it was accounted *Heresie* and *Damnatiou* to recede. So that nothing could be done, to set them at large from those vain Fancies and Ways, till they were perswaded to examine them with *freedom* and *indifference*, and to conclude according to the Report of their Faculties. They knew, That Truth would have the advantage, could it but procure an *impartial* Tryal: That the False Doctrines, and Fanatical Practices of the Times would be detected and sham'd, were it not for the superstitious straightness that supprest all Enquiry; and that those *Old Truths* that were exploded with so much abhorrence, would, in all likelyhood, gain upon the Judgments and Assents of all that were *free*, and *durst* to be *inquisitive*. On such accounts they prest the *Liberty* of *Judgment*; and in a time when it was very *seasonable*, and no hurt could directly arise from it. Since

(2.) They taught, and urged much *modesty* together with it; and allow'd not *Dogmatical* Affirmations, but in things that were most *fundamental* and *certain*: They consider'd, That our Understandings, at best, are very weak; and that the search of Truth is difficult; that we are very liable to be imposed on by our Complexions, Imaginations, Interests, and Affections. That whole Ages, and great Kingdoms, and Christian Churches, and Learned Counsels, have joyn'd in Common Errors; and obtruded false and absurd Conceits upon the World with great severity, and flaming Zeal; That much Folly, and great Non-sense have many times generally obtain'd, and been held for certain, and Sacred; That all Mankind are puzled, and bafled in the disquisition of the *seeming*, *plainest*, and most *obvious* things; In the *Objects* of *Sense*, and *Motions* of our *own* Souls: That (in earnest) we cannot tell, *How we speak a Word*, or *move a Finger*; *How the Soul is united to the Body*; or the *Parts of Bodies to one another*; how our *own* were *framed* at first; or how afterwards they are nourish'd. That these *nearest* things, and a thousand more, are hid from our deepest Enquiries.

Thus they consider'd often, and fill'd their Thoughts with a great sense of the *narrowness* of humane Capacity, and the

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Imperfections of our largest Knowledge; which they used not to any purposes of *unwarrantable Scepticism*, or absolute *neutrality* of Judgement, but to ingage their Minds to a greater *wariness* in *Enquiry*, and more shiness of Assent to things not very clear and evident; to more *reservedness* in their Affirmations, and more *modesty* in their Arguings.

After this manner they practised themselves, and thus they discours'd to others, and nothing could be more proper for those times, in which every one (almost) was immoderately *confident* of his *own* way, and thereby rendred *insolent* in his Dictates, and incurable in his Errors; scornful to opposite Judgments, and ready to quarrel all Dissenters; So that the World was hereby fill'd with Animosity and Clamours; whereas *modesty* in *Opinions* would have prevented those Mischiefs; and it was taught by those Men as the likelyest way of *Cure*. For there is no hopes, either of Truth or Peace, while every one of the divided, thinks himself *infallible:* But when they come to grant a possibility of their being out in their Beloved Tenents, there is something then to work upon towards their better Information.

But (3.) there was still less danger in the *Liberty* they promoted: for as much as they practised and perswaded much *prudence* to be us'd in the publishing of their Tenents; They allowed not any declaration of *private* Sentiments, when such a Declaration might tend to the disgrace or dissettlement of Legal Appointments, or any *Articles* of the *Establish'd* Religion; provided there were no *Idolatry*, or direct *Heresie* in the things injoin'd: But believ'd, and taught, That Men ought to *content* themselves with their *own Satisfactions*, in the Supposed Truths they have discover'd, without clamorous Disputes, or Wranglings. And though in the large compass of Enquiry they took, and the Considerations they had of all sorts of *Idæa's*, that enter into the various Minds of *thinking* Men, it could *not be*, but that they should have several Apprehensions, *different* from vulgar Thoughts; Yet they were very *cautious* in discovering their Conceptions among the illiterate and unqualified; They had no delight in speaking strange things, or in appearing to be singular and extraordinary: They were not so fond of their own Opinions,

as to think them necessary for all others: Nor were they infected with the Common Zeal, to spread and propagate every Truth they thought they knew: No, they consider'd, there were Truths which the World would not bear, and that some of the greatest would be receiv'd *here* with the bitterest contempt and derision: So that to *publish*, would be but to *expose* them to popular scorn, and *themselves* also: Their main Design was, to make Men *good*, not *notional*, and *knowing*; and therefore, though they *conceal'd* no *practical* Verities that were proper and seasonable, yet they were sparing in their *Speculations*, except where they tended to the necessary vindication of the *Honour* of *God*, or the directing the Lives of Men: They spoke of other Matters of *Notion* only among their *known Friends*, and such as were well prepar'd, able to examine, and dispos'd to pardon or receive them: Among *these* they discours'd the *greatest*, *freest* Speculations, with as much liberty in their *Words*, as in their *Thoughts*; and though they differ'd in many Notions, yet those Differences did nothing but serve the *pleasure* of *Conversation*, and exercise of Reasoning: They begot no estrangements or distasts, no noise or trouble abroad.

Such was the *prudence* that They practised and taught; and *this* also was very proper for those Times, when every Man vented his *Conceits* for *Articles* of *Faith*, and told his *Dreams* for *Revelations*, and then pretended he was extraordinarily enlightned, and strove to make Proselites, and quarrel'd with all that did not embrace his Fancies, and *separated* from the *Communion* of the Church, and endeavour'd to involve the World in Hurries and Distractions; and all *this*, for the sake of a few *pittiful*, *needless*, *sensless Trifles*: In *such* a time, *this prudent* Spirit and Practice was singularly *seasonable* and *useful*.

But though they were thus *cauteous* and wary about Theories more *remote*, and *not necessary*; yet they were not altogether indifferent to *what Men believ'd* and thought: No, They were concern'd, and zealous against the *Fanatick* Conceits and Humours of the Age, which were the occasions of so much Folly, Irregularity, and Disturbance: And my next Business is to declare in some great Instances, how they demeaned Themselves in *opposing* of them. This was the **second**

thing I undertook to relate; namely, *Their particular endeavours in the Affairs of Religion.*

But before I fall on it; I must declare to you, That They had not any *Religion* different from *that* of *other Catholick* Christians, but were faithful *adherers* to the *old acknowledg'd Christianity,* as it was taught by the Church of *Bensalem:* To this Church they *conform'd heartily*; though they were *distinguishable* from some others of her Sons, by the *application* of their *Genius* and *Endeavours:* I have told you, They grew up among the Sects; They were Born and Bred in that Age, which they could not help; But as they order'd the Matter, it was no hurt to the Church, or them, that they were educated in bad times: They had the occasion thence, of understanding the *Genius, Humour,* and *Principles* of the Parties, which, those that stood always at distance from them, could not so thorowly and inwardly know: By that means they had great advantage for providing, and applying the Remedies, and Confutations that were proper and effectual; And by daily Converse, and near Observation, they setled in their Minds a dislike of those ways, that was *greater* and *juster* than the Antipathy of some others who saw only their *out-sides,* that in many things were *specious* and *plausible.* They studied in the Places where some of the chief of the Sects govern'd, and those that were ripe for the Service, *preach'd publickly,* as other *Academical* Divines did. This they scrupled not, because they were *young,* and had been under no *explicit* ingagements to those Laws, that were then unhappily overruled: But in *those,* and in their other *University-Exercises,* they much serv'd the Interest of the *Church* of *Bensalem,* by undermining the *Ataxites,* (so the Sectaries are here call'd) and propagating the *Anti-fanatical* Doctrines, which they had entertain'd and improved: So that I cannot look upon that Spirit otherwise, than as an *Antidote* that Providence then seasonably provided against the deadly Infection of those days: On which account, they were by *some,* call'd the *Anti-fanites,* because of their peculiar opposition of the *Fans,* or *Fanites,* (as the *Ataxites* were sometimes named): And though some Persons thought fit to judge, and spoke of Them as a *new* Sort of *Divines*; Yet they were not to be *so* accounted, in any

any sense of *disparagement*; since the *new* Things they taught, were but *contradictions* of the *new* Things that were *introduced*; and *new* Errors and Pretences, will occasion *new* ways of Opposition and Defence.

I have now (I doubt) said the Governor, almost tired you with *prefacing*, but these things were fit to be *premised*: I exprest my self well-pleased, both with the *Matters* he related, and the *order* which he thought convenient to declare them in; and so he proceeded to the second main Head; Their particular Principles and Practices.

I MUST tell you then, said He, first, That they took notice of the loud Out-cries and Declamations that were among all the Sects, against **Reason**; and observ'd, how by *that means* all Vanities and *Phanatick* Devices were brought into Religion: They saw, There was no likelyhood any stop should be put to those Extravagancies of Fansie that were impudently obtruding themselves upon the World; but by *vindicating* and *asserting* the *use* of *Reason* in *Religion*; and therefore, their *private* Discourses, and *publick* Exercises ran much *this* way; to maintain the sober use of our Faculties, and to expose and shame all vain *Enthusiasms*: And as *Socrates* of old, first began the Reformation of his Age, and reduced Men from the wildness of Fansie, and *Enthusiastick Fegaries*, with which they were overgrown, by pleading for *Reason*, and shewing the *necessity* and *Religion* that there is in hearkning to its Dictates; So They, in order to the cure of the *madness* of their Age, were zealous to make Men sensible;

That *Reason* is a Branch and Beam of the Divine Wisdom; *That Light* which he hath put into our Minds, and *that Law* which he hath writ upon our Hearts: That the Revelations of God in Scripture, do not *contradict* what he hath engraven upon our Natures: That *Faith* it self, is an *Act of Reason*, and is built upon these two Reasonable Principles, *That there is a God*; and, That *what he saith is true*: That our Erroneous Deductions are not to be call'd *Reason*, but *Sophistry*, *Ignorance*, and *Mistake*: That nothing can follow from *Reason*, but *Reason*; and that what *so* follows, is as true and certain as *Revelation*: That God never disparageth Reason, in Scrip-

ture, but that the *vain Philoſophy,* and *Wiſdom of this World* there ſpoken againſt, were *Worldly Policies, Jewiſh Genealogies, Traditions,* and the *Notional Philoſophy* of ſome Gentiles: That *Carnal* Reaſon is the Reaſon of *Appetite* and *Paſſion*; and not the Dictates of our Minds: That Reaſon *proves ſome* Main and Fundamental Articles of *Faith,* and *defends all,* by proving the Authority of Holy Scripture: That we have no cauſe to take any thing for an Article of Faith, till we ſee Reaſon to believe that *God ſaid it,* and in the *ſenſe* wherein we receive ſuch a Doctrine: That to decry, and diſgrace *Reaſon,* is to ſtrike up *Religion* by the Roots, and to prepare the World for *Atheiſm.*

According to *ſuch* Principles as *theſe,* They managed their Diſcourſes about this Subject: They ſtated the Notions of *Faith* and *Reaſon clearly,* and endeavour'd to deliver the Minds of Men from that *confuſedneſs* in thoſe Matters, which blind Zeal had brought upon them; that ſo they might not call Vain *Sophiſtry* by the name of *Humane Reaſon,* and rail at *this,* for the ſake of *Fallacy,* and the *Impoſtures* of Ignorance and Fancy. Hereby they made ſome amends for the dangerous raſhneſs of thoſe inconſiderate Men, who having heard others defame Reaſon as an Enemy to Faith, ſet up the ſame Cry, and fill'd their Oratories with the terrible noiſe of *Carnal Reaſon, Vain Philoſophy,* and ſuch other miſapplyed words of reproach, without having ever clearly or diſtinctly conſider'd what they ſaid, or whereof they affirm'd: And *this* they did too at a time when the World was poſting a-pace into all kinds of madneſs; as if they were afraid the half-diſtracted Religioniſts would not run faſt enough out of their Wits, without their Encouragement and Aſſiſtance: And as if their Deſign had been to *credit Phrenſie* and *Enthuſiaſm,* and to diſable all proof that could be brought againſt them. This I believe many of thoſe well-meaning *Canters* againſt Reaſon did not think of, though what they did had a direct tendency that way: And *accordingly* it ſucceeded; For the conceited People hearing much of *Incomes, Illuminations, Communions, Lights, Diſcoveries, Sealings, Manifeſtations,* and *Impreſſions,* as the Heights of Religion; and then, being told, that *Reaſon* is a *low, Carnal Thing,* and not to judge in theſe *Spiritual*

Matters:

Matters; That it is a Stranger to them, and at enmity with the Things of God: I ſay, the People that were ſo taught, could not chuſe but be taken with the wild *Exſtatical Enthuſiaſts*, who made the greateſt boaſts of theſe *glorious* Priviledges; nor could they eaſily avoid looking upon the *glarings* of their own *Imaginations*, and the *warmths* and impulſes of their *Melancholy*, as *Divine Revelations*, and *Illapſes*. To this dangerous paſs thouſands were brought by ſuch *Preachments*, and had ſo well learn'd to apply the Doctrines they had been taught, that he that ſhould endeavour to undeceive them, was ſure to hear what an *Enemy this Reaſon*, this *Carnal Reaſon*, this *Vain Philoſophy*, was to *Free Grace* and *Faith*; and how little able to judge of thoſe *Rich*, thoſe *Precious*, thoſe *Spiritual* Enjoyments.

'Twas time now, in ſuch an Age as *this*, to aſſert the ſober *uſe* of *Reaſon*, and to reſcue Religion by it. And They did this happily, and ſhamed all falſe pretences to the *Spirit*, ſhewing,

That there was nothing but *Nature* and *Complexion* in the *Illuminations*, *Incomes*, *Raptures*, *Propheſies*, *New Lights*, *fluency* of *Expreſſion*, *myſteriouſneſs* of *Phraſe*, and other wonderful things of the *Enthuſiaſts*, which were ignorantly taken to be Divine Communications, to the great abuſe of Religion, and the Souls of Men: Perceiving (I ſay) that this dangerous *Phanatick* Spirit was the *evil Genius* of the Age, they bent all their force againſt it, and detected the impoſture, and labour'd zealouſly to diſabuſe the credulous People, who were exceeding apt to be taken with ſuch *glorious Nothings*. (But of this, I ſhall have another occaſion to ſpeak more.)

AND becauſe the *wildneſs* of *Enthuſiaſm*, and *reproaches* of *Reaſon*, had expos'd *Chriſtianity* it ſelf to the Suſpicions of ſome, and Contempts of others, as if it were a precarious unreaſonable thing, that depended only upon Mens Fancies; Therefore here They labour'd alſo, with very pious pains, to *demonſtrate* the **Truth** and **Reaſonableneſs** of the **Chriſtian Religion**; The *Beeing of God*; The *Immortality of Humane Souls*; And *Authority of Scripture*; which they did with much Zeal, and much Judgment: And theſe Doctrines were

were too ſeaſonable and neceſſary in that Age, in which the moſt glorious Profeſſors laid the whole ſtreſs of Religion upon Fancies, and thereby undermin'd the Foundations of Faith, and Truth; and by many Vanities, and endleſs Diviſions, had made ſo many Infidels, and unhappily diſpos'd ſo many others to go the ſame way: Againſt *theſe* therefore They bent their ſtrength, and reſcued multitudes, eſpecially thoſe of the *ſpringing* Generation, from the hands, both of the *Enthuſiaſt* and the *Infidel*; Anſwering and diſcrediting all the *new* Pretenſions and Objections, both of the one and the other: And their Endeavours here were very needful, becauſe the *Ancient* Books of thoſe kinds were deſpis'd and neglected by the concern'd Parties; and they were not ſo ſuitable to the Guize and Faſhion of our Age; and many Exceptions were ſtarted a-new, and many other vain things boaſted of, to which thoſe elder Diſcourſes did not apply their force: But theſe *new* Defenders of the Chriſtian Truths met them all, and ſpake the things that were ſuitable, as well as thoſe that were *ſtrong* and *true*: By theſe means the reaſonable ſober Spirit began to propagate; and the *Enthuſiaſt*, who took notice of it, and knew it would deſtroy his Glorious Imaginations, rais'd a loud clamour againſt theſe Men as *Socinians*, and advancers of Proud *Reaſon*, above *Free Grace* and *Faith*.

From this envious and fooliſh Charge, they ſufficiently juſtified themſelves by ſeveral Sermons, and publick Determinations in their *Academical Solemnities*, againſt the chief Principles of *Socinianiſm*, ſtrenuouſly aſſerting the *Deity of Chriſt*, and *Immortality* of Humane *Souls*, &c. and vigorouſly oppoſing the main *Socinian Tenents*: In conſequence of which, they ſhew'd the *ſure* and *ſafe* ways to deſtroy thoſe Opinions, without hurting the *Catholick* Doctrines, which many had *wounded* to do them *ſpight*; and in this Deſign ſome of them appeared in publick with great ſucceſs.

HAving thus asserted the *Honour* of our *Faculties*, and maintain'd the *Fundamental* Interests of *Religion*, They took notice, what *unworthy* and *dishonourable Opinions* were publish'd abroad concerning *God*, to the disparagement of all his Attributes, and discouragement of vertuous Endeavours, and great trouble and dejection of many pious Minds; and therefore here they appear'd also to *assert* and *vindicate* the **Divine Goodness** and *love of Men* in its *freedom* and *extent*, against those Doctrines, that made his *Love*, *Fondness*; and his *Justice*, *Cruelty*; and represented God, as the Eternal Hater of the far greatest part of his reasonable Creatures, and the designer of their Ruine, for the exaltation of *meer Power*, and *arbitrary Will*: Against these sowr and dismal Opinions They stood up stoutly, in a time when the Assertors of the Divine Purity and Goodness, were persecuted bitterly with nicknames of Reproach, and popular Hatred. They gave sober Accounts of the *Nature* of God, and his *Attributes*, suitable to those Declarations of himself he hath made by the Scriptures, and our Reasons: They shew'd continually how impossible it was that *Infinite Goodness* should *design* or delight in the misery of his *Creatures*: That God never *acts* by *meer arbitrary Will*, but by a *Will directed* by the Perfections of his Nature: That to act *arbitrarily* is *Imperfection* and *Impotence*: That he is tyed by the excellency of his Beeing, to the Laws of *Right*, and *Just*, and that there are *independent Relations* of *True* and *Good* among things, *antecedent* to all *Will* and *Understanding*, which are indispensible and eternal: That *Goodness* is the Fountain of all his Communications and Actions *ad extra*: That to *glorifie* God, is rightly to apprehend and celebrate his Perfections, by our Words, and by our Actions: That *Goodness* is the *chief* moral Perfection: That *Power* without Goodness is *Tyranny*; and *Wisdom* without it, is but *Craft* and *Subtilty*; and *Justice*, *Cruelty*, when *destitute* of Goodness: That God is not pleased with our *Praises*, otherwise than as they are the *suitable* Actings of his Creatures, and tend to make them love him, in order to their being happy in him.

By

By *such* Principles as *These*, which are wonderfully fertile, and big of many great Truths, they undermined, and from the bottom overthrew the fierce and churlish *Reprobatarian* Doctrines; And those Truths they proved from the *Scripture*, and the *Nature* of *God*, and *Reason* of *Things*, with all possible clearness, and strength of Evidence.

OBserving further, That *Faith* was preach'd up as the *whole* of Religion; and *that* represented *variously*, *phantastickly*, and after an *unintelligible* manner, drest up in *Metaphors* and *Phrases*, and dangerous *Notions*, that prescinded it from *Good Works*, and made *them* unnecessary: Here they appeared also, and detected the vanity and canting of this *Airy Divinity*; Stating the *Notion* of *Faith* plainly and clearly, and stripping it out of its *Chymerical* cloathing, Teaching,

That Faith in the *general* is the *Belief of a Proposition affirm'd*; and *Divine Faith*, the *belief of a Divine Testimony*; and *Evangelical*, Saving Faith, *such a Belief as works on the Will and Affections*, and *produceth the Works of Righteousness*: So that the Faith that is said to *justifie*, (in the *forensick* sense) is a *complex* thing, and takes in an *Holy Life*, and all the *Graces* of the Spirit, which are call'd by the *name* of *Faith*, because *that* is the *Root* of all the rest. Thus they asserted the necessity of a *real*, *inward* Righteousness, against the *Solifidian* and *Antinomian* Heresies, which had poison'd the whole Body of the then *Current Theology*, and was counted the *only Spiritual Doctrine*.

In those days Men were taught, that we are *justifi'd only* by the **Imputed Righteousness** of Christ, by which they said, we are *formally* Righteous; That *Faith* justifi'd only as it laid hold of *that*, (as they phrased it) and that *Inherent Righteousness* was to be renounc'd, and had nothing to do here. *These* were the great dear *Mysteries* of their *Theology*, that season'd all their Doctrines and Instructions, which by this means also were rendred exceedingly fanciful and dangerous: Therefore in *this* likewise, those Divines interposed and demonstrated the *vanity* and *mischief* of such *fulsome* and *groundless* Conceits; They stated the true and warrantable sense in which

Christ's

Christ's Righteousness is *imputed*, viz. *Metonymically*, and as to *Effects*; That is, That for the *sake* of his *Righteousness*, God was pleas'd to *pardon Penitents*, and to deal with them upon their *Faith*, and sincere *Obedience*, as if they had been *Righteous* themselves: Not as if he past false, and mistaken Judgements, and looked on *Christ's Righteousness* as *really* and *properly theirs*; but that for *his* sake He pardon'd their sins, and accepted of their personal *imperfect* righteousness, as if it had been *perfect*. They shew'd that *this* account was agreeable to *Scripture*, and the *Analogy* of *sound* Faith, and Practice; and that the *other sense* was no-where deliver'd in the holy Oracles, but was a meer imagination contrary to the Attributes of God, and to the Doctrines, and designs of the Gospel, and exceedingly pernicious to Christian Life, and Vertue: They alledg'd that *Christ's Righteousness* is *no-where* in Scripture said to be *imputed*: That he is no otherwise made *Righteousness to us* then he is made *Sanctification*, and *Redemption*; that is, He is the great *Author* and *procurer* of them; and that in *that* sense he is the *Lord our Righteousness*. They took notice how that by this odd Fanatick principle, *Personal Righteousness* was undermin'd, and disparaged; and one of the first things the people were taught, was, to *renounce* their *own Righteousness*, without restriction, or limitation, in which Counsel there is much *shew* of *humility*; but much *non-sense* and much *danger*, if it be not deliver'd, and taken in a *cautious* sense: For the Apostles, and primitive Believers never renounc'd *any Righteousness*, but *that* of the *Mosaical dispensation*, in which some of them had gloried much before their conversion; But *after* it, were convinc'd, It was nothing worth, and counted it as *dross*, and *dung* in respect of *that Righteousness* that *Christ* taught: They never disparaged *real*, *inward Righteousness*: Yea they took ground of *confidence*, and *rejoycing* from it, *viz.* from the *simplicity* and *sincerity of their conversation*, from their having a *good Conscience in all things*; from their *stedfastness* amidst *Tribulations*, and *patience* in their *Sufferings*; and they plainly tell us, That Religion was *doing Righteousness*, and consisted in *visiting the Widow and Fatherless*, and *being unspotted with the World*; in *denying* all *ungodliness*, and *worldly lusts*, and living *soberly*,

 righteously,

righteously, and *Godly*; They warn us to beware of those deceivers that would perswade a man may *be righteous*; without *doing righteously*; yea they declare the promises to be entail'd upon those, that by *patient continuance in well-doing seek for Glory*, and *Immortality*.

But said He, I forget my self, and run out too far into this Discourse, in which I suppose I need not inform you, the Scriptures being so full in it.

Here I took liberty to move a Question, and ask'd him, Whether those Divines did teach, or allow Mens *relying*, and *depending* on their own inward Vertues, or outward Works? To this he said, They had not the least imagination, that there was either *Merit*, or *Perfection* in our qualifications, or performances; but that in *those respects* they renounc'd their own *righteousness*, and *obedience*: That they acknowledg'd, and declared that our highest, best services could never *deserve* the divine notice, or acceptance by any worthiness in them; But then, added He, They said also, that *Christ's obedience* was *Perfect*, and *Meritorious*, and that God was so well satisfied with it, that for *his sake* he promised to pardon the failings of our duties, and to accept of *Sincerity* instead of *Perfection*: That on this account, our *short*, *defective* righteousness was receiv'd, as if it had been *adæquate*, and *compleat*; we being through Christ, under a Covenant of Grace, and Pardon, and our obedience not judg'd according to strict measures, and proportions, but by the rules of mercy, and favour. Thus they stated that matter clearly, and struck at the root of *Antinomian* follies, and impostures.

AND because *Morality* was despised by those elevated Fantasticks, that talk'd so much of *Imputed Righteousness*, in the false sense; and accounted by them, as a *dull*, and *low* thing; therefore those Divines labour'd in the asserting and vindicating of this: Teaching the *necessity* of *Moral* Vertues; That *Christianity* is the *highest improvement* of them; That the meer *first-table* Religion is nothing, without the works of the *second*; That *Zeal*, and *Devoutness*, and delight in *Hearing*, *Prayer*, and other externals of worship, may be in very evil men: That Imitation, and Custom, and Pride, and Self-love

love may produce these: That *these* are no more then the *Forms* of *Godliness*: That the *power* of it consists in subduing *self-will*, and ruling our *passions*, and moderating our *appetites*, and *doing* the *works* of real Righteousness towards God, and our Neighbour.

And because there was a Religion that had got into credit, that did not make Men *better*, but *worse* in all relations, worse Governours, and worse Subjects, and worse Parents, and worse Neighbours; more sower, and morose, and fierce, and censorious; Therefore, They prest Men to consider, That the *design* of *Religion* was to *perfect humane Nature*; To restore the empire of our *minds* over the *will*, and *affections*; To make them more temperate, and contented in reference to themselves, and more humble, meek, courteous, charitable and just towards others. On such things as *these*, performed *sincerely*, by the assistance, and encouragement of *Faith* in *Christ*, and from a desire to be ruled by his Laws, they lay'd the whole stress.

AND being the Age was unhappily dispos'd to place *much Religion* in their conceited *Orthodoxy*, and *Systems* of Opinion, to the destruction of Charity, and Peace; To the dissetlement of Religion, and great hinderance of real Godliness: They therefore zealously decryed this *superstition* of *Opinions*, and smartly reproved *Disputings*, and *eagerness* of contest about *Notions*, and *lesser* Truths: Shewing the inconveniencies, and mischiefs of that spirit, and it's inconsistency with Charity, and the peace of Mankind: They perswaded *modestly* in all *extraessential* Doctrines, and *suspence* of judgement in things that were not absolutely *certain*; and readiness to pardon the mistakes of those that differ from us in matters of speculation.

In order hereunto, They made this one of their main Doctrines; That *The principles which are necessary to Salvation are very few, and very plain, and generally acknowledg'd among Christians*: This they taught, and were earnest in it, because they saw it would secure Charity to dissenters, and prevent all vehemencies of captious dispute, all schisms, and unnecessary separations, and many Wars, and Persecutions upon the ac-

count of Religion: For if the things in which Men *differ*, be not *Religion*, be not *Faith*, and *Fundamental*; If this be true, and this truth acknowledg'd, All these would want pretence; and so *Peace* and *Unity* would possess the spirits of Men. They saw that Religion, which was *shaken* by *divisions*, and rendred *suspected* of *uncertainty* through the *mixture* of *uncertain* things, would stand *safe*, and *firm* when 'twas lay'd only upon the *plain*, *infallible*, *undoubted* propositions: That holiness would thrive, when Mens zeal was taken off from talking, and disputing against others, and directed inwards to the government of themselves, and the reformation of their own hearts, and lives: That *Papism*, which in those times of distraction began to spread even here, would drop to the ground, if it were believed, That the *necessary principles of Religion were few*, and *plain*, and those *agreed* on: For then there would be no need of an *Infallible Interpreter*, and *Judge*: I say, They were sensible, that all the great Interests of Religion, and Mankind might be served by the acknowledgment of this *one Reasonable Principle*; which they saw was the only way to bring us to *stability*, and *consistence*; to *Peace, and Union.*

In Consequence of this Spirit, and Doctrine, they discours'd the things wherein they differ'd from others, with mildness, and modesty, without anger, and damning sentences; and afforded their converses to all sorts of good Men, though they believ'd them mistaken: They never exprest rage in their conversations, or discourses against *bare errours*, and mistakes of judgment: But for the *pride*, and *confidence*, *censoriousness* and *groundless* separations, that are the frequent attendants of different opinions; *These* sometimes mov'd them to anger, and expression of just resentment; because they look'd on them as great *Immoralities*, and very *pernicious sins*: And on the occasion of these *spiritual* vices, they were warmed with zeal, against the *Sectaries*, and *Bigots*; for the taking down of whose *pride*, and *confidence*, They thought it necessary to detect the *Impostors*, and to expose their vanities; which they did *successfully*, and shew'd:

That their *Divinity* consisted most in *Phrases*; and their *boasted spirituality*, in *fond affections*: That their *new lights* were but *freakish* fancies; and *old Heresies* revived; and the precious

precious *Mysteries* of their Theology, but conceited *absurdities*, and *non-sense* in a fantastick dress: They happily drew the parallel between *our Separatists*, and those antient *ones*, the *Pharisees*; and proved that the same spirit acted the *Ataxites*, that govern'd *those Jewish Fanaticks*: And because their pretences were *taking*, and *specious*, and had caught great numbers of the easie, well meaning people of *Bensalem*; Therefore, to disabuse them, they labour'd much to shew the *shortness* of their kind of *Godliness*; and the danger of placing all Religion in *Praying*, *Hearing*, *Zeal*, *Rapture*, *Mysteries*, and *Opinions*:

Accordingly they declar'd, and prov'd, That 1. *Fluency*, and *Pathetick* eloquence in *suddain* Prayer may proceed, and *doth*, many time, from *excited passion*, and warm imagination; from a peculiar temper, and heated melancholly: That *these* are no sign that a man *prays by the spirit*, nor do they argue him to be one jot the better, then those that want the faculty, or any whit the more accepted of God for it: That to *pray by the spirit* is to pray with *Faith*, *Desire*, and *Love*; and that a Man may pray by the *spirit*, and with a *Form*.

2. That people may *delight to hear* from other causes, then conscience, and a desire to be directed in the government of their Lives: That hearing is very grateful to some, because it feeds their opinions, and furnisheth their tongues, and inables them to make a great shew of extraordinary Saint-ship: They represented that *meer animal* Men, and fond lovers of themselves may be much taken with hearing of the *Gracious promises*, and *Glorious priviledges* of the Gospel; when at the same time, they are told they are all *theirs*, and *theirs peculiarly*, and *exclusively* to the rest of Mankind: That pride, and vanity, and self-love will recommend, and indear *such preaching*; That it is most luscious to fond, and conceited men, to hear how much *better*, and *more precious* they are then their Neighbours; how much dearer to God, and more favour'd by him; what an *interest* they have in *free*, *distinguishing* Grace, and how very few have a share in it, besides themselves: How their enemies are hated of God, and how *sad* a condition they are in, who differ from them in practices, and opinions: To doat on *such preaching*, and

admiringly to follow ſuch Preachers, They ſhew'd, was but to be in love with *flattery*, and *ſelf-deceit* : That it was no ſign of *Godlineſs*, but an evident argument of pride, malice, and immoderate ſelfiſhneſs ; That *theſe* are the true cauſes of the zeal, and earneſtneſs of *many* after Sermons ; and of the *pleaſure* that they have in *hearing*, though they would perſwade others, and believe themſelves, that the love of Religion, and ſence of duty are the only motives that prevail with them.

3. Concerning *zeal*, They taught ; That *zeal* in it ſelf is *indifferent*, and made *good*, or *bad*, as it's *objects*, and *incentives* are ; That meer education, and cuſtom, natural conſcience, and particular complexion, do ſometimes make Men very zealous about things of Religion : That though the fervours of the *Ataxites* for their Doctrines, and ways, were not all *feigned* ; But *real* and *ſincere* ; Yet their *zeal* was nothing worth, being but *meer natural paſſion*, kindled by a fond delight in their own ſelf choſen practices, and opinions ; That their *coldneſs* to the great known neceſſary duties of Juſtice, Charity, Obedience, Modeſty, and Humility was an evident ſign, that their *heat* for pretended *Orthodox* tenents, and modes of worſhip, had nothing *Divine* in it : That true *zeal* begins *at home* with *ſelf-reformation* ; and that where it was imployed altogether about amendments of *external* Religion, and publick Government, it was *pernicious*, not only to the World, but to a Mans ſelf alſo.

4. And becauſe the *heights* of *zeal* ran up ſometimes into *raptures*, and *extacies*, which were look'd on as wonderful appearances of God in the thus tranſported perſons ; Therefore, here alſo They undeceived the people (as I ſaid in the general before) by ſhewing,

That theſe *alienations* may be cauſed *naturally*, by the power of a *ſtrong fancy*, working upon violent *affections* : That they *together may*, and *do*, oft, produce *deliquiums* of ſenſe ; That the *Imagination* working then *freely*, and without contradiction, or diſturbance from the external ſenſes, and being wholly imploy'd about *Religious* matters may form to it ſelf *ſtrange Images* of extraordinary *apparitions* of God, and Angels ; of

Voices,

Voices, and *Revelations*; which being *forcibly* imprest on the fancy, may beget a *firm belief* in the *exstaticall* person, that all these were *divine manifestations*, and *discoveries*; and so he confidently thinks himself a *Prophet*, and an inspired Man, and vents all his conceits for *Seraphick* truths, and holy *Mysteries*: And by the *vehemency* of his affirmations, and the strange effects of his distemper, others are perswaded into the same vain opinion of him, that he hath of himself, to the great disparagement of Religion, and deception of the simple.

This whole *mystery* of *vanity*, and *delusion* They lay'd open to the World, and shew'd, that all was but a *natural* disease, and far enough from being sacred, or supernatural: That very *evil* Men, and even the *Heathen* Priests have felt all those effects, and pretended to the same wonders; and were as much inspired, and divinely acted, as those *exstatical Dreamers*:

5. And whereas those high flown *Enthusiasts* talk'd much of *mysteries*; and the Sects, (generally contending which should out-do the other here) made up their *schemes* of *divinity* of *absurdities*, and strange, unintelligible fancies; and then counted their *groundless* belief of those *wild freaks*, a great sign and exercise of *Faith*, and *spirituality*; The Divines (of whom I am speaking) imploy'd themselves worthily to detect *this taking imposture* also; They gave the true senses in in which the *Gospel* is a *mystery*, viz. *A secret*, *hid in the councils of God*, and not *discoverable* by *reason*, or humane enquiries till he was pleased, in the fulness of time, to unfold it clearly, and explicitly by his *Son*, and by his *Spirit*, who *revealed* the mystery that had been *hid from ages*: That Religion may *yet* be call'd a *mystery*, as it is an *Art* that hath *difficulty* in the practice of it: And though all it's *main*, *necessary* Articles are asserted so clearly, that they may be known by every sincere Inquirer, and in that respect have no darkness, or obscurity upon them; Yet They asserted, that *some* of those propositions may be styled *mysterious* being *inconceiveable* as to the *manner* of them: Thus the *Immaculate Conception* of our *Saviour*, for instance, is very plain as to the thing, being reveal'd clearly, *That it was*; Though *unexplicable*, and unreveal'd as to the *mode*, *How*: They said, That our Faith is not concern'd in the

the *manner*, which *way* this, or that is, except where it is expresſly, and plainly taught in Scripture ; but that the belief of the *ſimple* Article is ſufficient : So that we are not to puzzle our ſelves with *contradictions*, and knots of *ſubtilty*, and *fancy*, and then call them by the name of myſteries : That to affect *theſe* is dangerous vanity, and to believe them, is ſillineſs, and credulity : That by, and on the occaſion of ſuch pretended myſteries, The *ſimplicity* of the Goſpel hath been deſtroy'd, the minds of Men infatuated, ſober Chriſtians deſpis'd, the peace of the Church diſturb'd, the honour of Religion expos'd, the practice of holineſs and vertue neglected, and the World diſpos'd to *Infidelity*, and *Atheiſm* it ſelf.

6. And ſince the being *Orthodox* in Doctrine, and ſound in their new conceited Faith, was in thoſe times a great matter, and one *mark* of *Saint-ſhip* ; as *errour* on the other hand was of *unregeneracy*, and *Reprobation* ; They ſhew'd, That bare knowledge of points of *Doctrine* was nothing worth, in compariſon of *Charity*, *Humility*, and *Meekneſs* ; That it did not ſignify in the divine eſteem *without theſe*, and ſuch other concomitant Graces : That a man was never the *better* for being in the *right* opinion, if he were *proud*, *contentious*, and *ungovernable* with it : That ignorance, and miſtake in *leſſer* things when joyn'd with modeſty, and ſubmiſſion to God, and our Governours, was much to be prefer'd before empty turbulent, and conceited *Orthodoxy*: That errors of judgment are truly *infirmities*, that will not be *imputed*, if there be no corrupt, and vicious mixture with them : That they are not hurt to him whom they do not ſeduce, and miſlead ; nor do they make any alteration in our ſtate : That God pardons them in us, and we ought to overlook and paſs them by in one another.

By ſuch ways and repreſentations as theſe They diſabl'd the main *works* wherby the fond *Ataxites* concluded themſelves to be the *Godly* ; and deſtroy'd the chief grounds on which they built their *proudeſt* pretences. So that their wings being clipt, they came down to the ordinary level with other mortals ; leaving the title of *Godlineſs*, and *Saint-ſhip* to be made out by quiet devotion, and ſelf-government, by *Meekneſs*, and

Charity,

Charity, *Justice*, and *Patience*, *Modesty*, and *Humility*, *Universal Obedience* to *Gods Commands*, *Reverence* to *Superiours*, and *Submission* to *Governours*; and not by the other fantastical, and cheap things, consisting but of *imaginations*, and *phrases*, and *mystical* nothings.

AND for as much as each Sect *confin'd* the *Church*, *Saintship*, and *Godliness* to it self, and entail'd the Promises, and Priviledges of the Gospel upon it's *own* People; Therefore here They stood up, and reprov'd the Anti-christian pride and vanity of that cruel, and unjust humour; Shewing, That the *Church* consists of all those that agree in the profession, and acknowledgment of the Scripture, and the *first* comprehensive, *plain Creeds*, however scatter'd through the World, and distinguish'd by names of Nations, and Parties, under various degrees of light, and divers particular models, and forms of Worship, as to circumstance, and order: That every lover of God, and of the Lord Jesus Christ in sincerity, who lives according to the few, great acknowledg'd Doctrines, and Rules of a vertuous and holy life, is a *true Christian*, and will be happy; though he be ignorant of many points that some reckon for Articles of Faith, and err in *some*, which others account *sacred*, and *fundamental*: By which *Catholick* principle, foundation is lay'd for *universal* Charity, and Union; and would Christian men be perswaded to govern themselves according to it, all unnecessary *Schisms*, and *Separations* would be prevented, and those *Hatreds*, and *Animosities* cur'd, that arise from lesser disagreements.

AGain, whereas as the *Ataxites* had made Religion a *fantastick*, and *unintelligible* thing, (as I have told you) and drest it up in an *odd*, *mumming*, and ridiculous disguise; Those Divines labour'd much to reduce it to it's native *plainness*, and *simplicity*; purging it from sensless *phrases*, conceited *mysteries*, and unnecessary words of *Art*; Laying down the genuine notions of Theology, and all things relating to *Faith*, or *Practice*, with all possible perspicuity, and plainness: By which means many scandals were remov'd, and vain disputes discredited,

dited, divisions stop'd, Religious practice promoted, and the peace of the Church at last establish'd. They told the *Ataxites* that though they talk'd much of *closing with Christ*, *getting in to Christ*, *rolling upon Christ*, *relying upon Christ*, and *having an interest in Christ*; and made silly people believe that there was something of *Divine* Mystery, or *extraordinary spirituality* under the sound of these words; That yet, in good earnest, either they *understood not* what they said, and mean'd nothing at all by them; or else the sense of them was but *believing Christ's Doctrines*, *obeying his Laws*, and *depending upon his Promises*; plain, and known things: They shew'd that all the other singular phrases, which they us'd, and which the people were so taken with, were either *non-sense*, and *falsehood*; or but some very *common*, and ordinary matter at the bottom: That they had generally silly, and fantastick conceptions of *Free Grace*, *Gospel-liberty*, *Saving knowledge*, *Pure Ordinances*, The *motions of the Spirit*, *Workings* of *Corruption*, *Powerful preaching*, *Liberty* of *Conscience*, *Illuminations*, and *Indwellings*: That their Admirers generally talk'd those words by rote, without knowing the meaning of them; and that the Teachers themselves understood them in a false and erroneous sense: That bating such words, and the talk of *Outgoings*, *Incommings*, *Givings-in*, *Dawnings*, *Refinings*, *Withdrawings*, and other *Metaphors*, there was nothing *extraordinary* in their whole Divinity, but the *non-sense*, and *absurdities* of it: Thus They declar'd freely against the *Gibberish* of that Age, and stated the right Notion of those points of Religion, which the others had so transformed, and abused.

Further: Whereas the Sects kept up loud cryes against the *Church* of *Bensalem*, as guilty of *Superstition*, *Will-worship*, undue *Impositions*, and *Persecution*; They took them to task *here* also and declar'd,

That *Superstition* in the properest sense of it, imports, An over-*timerous*, and dreadful apprehension of *God*, which presents him as rigid, and *apt* to be *angry* on the one hand; and as *easie* to be pleas'd with flattering devotions on the other; so that *Superstition* works two wayes, *viz.* by begetting

getting *fears* of things, in which there is *no hurt*; and *fondness* of such, as have *no good* in them: on both which accounts they declar'd the *Ataxites* to be some of the most *superstitious* people in the World: They shew'd, That their *dreadful* notions of God, which represented him as one that by peremptory, unavoidable *decrees* had bound over the greatest part of men to everlasting Torments, without any *consideration* of their *sin*, only to shew the *absoluteness* of his *power*, over them; I say, They declar'd that those *black* thoughts of Him, were the Fountain of numerous superstitions: That their *causless fears* of the *innocent Rites*, and usages of the Church of *Bensalem*, which were only matters of *order*, and *decency*, appointed by the *Governours* of the Church, and not pretending any thing, in *particular*, to *divine Institution*, was very gross, and silly *superstition*: That they were very *superstitious* in being *afraid*, and bogling at *prescribed Forms* of Prayer; *kneeling* at the holy *Sacrament*, the *Cross* in *Baptism*, and the like *becomming*, and *decent* Institutions: That 'twas *Ignorance*, and *Superstition* to fly off with such dread from a few injoyn'd *Ceremonies*, because (forsooth) they were *symbolical*, and *significant*; That the Ceremonies that are not *so*, are *vain*, and *impertinent*: That the *Ruling* Powers may appoint *such*, for the *visible* instruction, and edification of the People, and for the more reverence, and solemnity of Worship: That the current principle among them, [That *Nothing is to be done in the Worship of God*, *but what is particularly commanded*, *and prescribed in Scripture*] is a foolish, groundless conceit, and the occasion of many Superstitions: That though *this* is always pretended, and said, yet it was never proved: That to observe the Church in such appointments, without any opinion of their *antecedent necessity*, is a due act of obedience to it; But to fly from them as *sinful*, and *Anti-christian*, is great *Superstition*.

These things they declar'd, and prov'd against the *negative Superstitions* of *Taste not*, *Touch not*, *handle not*:

And They shew'd also, how justly chargeable the *Ataxites* were with many *Positive* ones; in that they doated upon *little*, *needless*, *foolish* things, and lay'd a great stress of Religion upon them: That the keeping such stir about pretended *Or-*

thodox opinions, and the placing them in their *Creeds*, among the most sacred and fundamental Doctrines, was a dangerous and mischievous *Superstition*: That it was very *superstitious* to dignify private conceits, or *uncertain tenents*, with the style of *Gospel-light*, *Gods Truths*, *precious Truths*, and the like expressions of admiration, and fondness: That to intitle the *Spirit* of God to the *effects* of our *imaginations*, and the *motions* of *natural passions*, was *Superstition*; and that *so* was the opinion of the *necessity*, and *spirituality* of suddain *conceiv'd* prayer: That there was much *Superstition* in their *Idolizing* their particular *ways* of Worship, and *models* of Discipline, as the *pure Ordinances*, and *Christs Government*, and *Scripture Rules*: And that in *these*, and many other respects they that talk'd so much *against Superstition*, were themselves most notoriously guilty of it.

As to *Will-worship* They taught, (after your most learned *Hammondus*) That the Apostle in the only place where it is mention'd, *Col.* 2. doth not speak of it, in an *evil* sense; But that ἐθελοθρησκεία imports a *free*, and *unconstrain'd* worship, which is the *more* acceptable for being *so*: That *Sacrifices* before the Law; *Free-will-offerings* under it; The feasts of *Purim*, and *Dedication*, *Davids design* of building the Temple; the *Austerities* of the *Rechabites*; and St. *Paul's refusing hire*, for his labour among the *Corinthians*, were of *this sort*. That men are not to be blamed for *Will-worship*, except they would *impose* it *without Authority*, as *necessary*. That when they thus teach for *Doctrines* their *own Traditions*, and grow so proud, and conceited with them, as to *separate* from the publick Communion, upon the fancy that they are more pure, and holy then others; That this their Will-worship is sinful, and Pharisaical; which was the case of the *Ataxites*, who therefore were Will-worshippers in the evil sense; But the Anti-fanites shewed, that the pious Institutions of just Authority were no way lyable to any such imputation:

That such might *impose* particular Circumstances, and Decencies, and that those Impositions were no way contrary to *Gospel Liberty*: That that was only *Freedom* from the *Jewish yoke*, from the *bondage* of *sin*, and *power* of *Sathan*: not *Li-*

berty from the *Injunctions* and Appointments of *Civil*, or *Ecclesiastical* Governours: That *all*, or the *chief* power of *these*, consisted in fixing, and appointing *circumstances* of order, and decorum, that were left undetermined, and not prescrib'd in Scripture: That if they may not do *this*, they are in a manner useless: That the Church of *Bensalem* impos'd nothing that was grievous, or prohibited: They minded the *Ataxites* that themselves were great *Imposers*, That they imposed *Oaths*; and Ceremonies in *that* part of Religious Worship, a *form* of *words*, the *lifting* up of the *hand*; and That they would have impos'd numerous, doubtful, and false opinions, to have been subscrib'd as a necessary *Confession* of *Faith*; making thereby their own private tenents of *equal* moment, and certainty with the great fundamental Articles, which is *proper* imposing upon the Conscience: That they would not, by any means, allow Liberty of Conscience, when they were in power; that this then was the great *Abomination*, and the most *accursed* thing in the world: That they persecuted the *Bensalemites* for their Consciences with wonderful inhumanity; That when *other* power is taken from them, they are grievous persecutors with their *Tongues*, and are continually shooting the Arrows of bitter, scornful words against all that are of different judgment.

Thus Those Divines disabled all the charges, and pretences of the Fanites; and turn'd the points, and edge upon themselves. And they manag'd their Rebukes of these self-condemn'd men, with much judgment, and wit, without any thing of fierceness, or scurrility: They shew'd them the Immorality of their spirit, and it's contradictions, and antipathy to the genius, and temper of the Gospel; and urged, That though they hated debauchery, and some gross *Carnal* sins, as the *Pharisees* did the *Publicans*, Yet they were given up to many other sorts of *wickedness*, to spiritual *Pride*, *Malice*, *Envy*, *Avarice*, *Stubbornness*, *Disingenuity*, and *Disobedience*: That they harbour'd, and kept warm *these*, under their pretences of *Christs Righteousness*, and their specious *forms* of *Godliness*: That though they were always confessing sin, in the *general*, with much seeming remorce, and trouble of spirit, yet they seldom, or never, made acknowledgements of these. That

though

though they lov'd to hear the sins of *Drunkenness*, and *Prophaneness* vehemently declaim'd against ; Yet they could not endure to have *these* throughly detected, and reprov'd : That even their own Teachers durst not touch *here*, and that when others did it, though without *naming* parties or pointing out persons, they call'd it *Railing* and *Persecution* ; and made no other use of those just rebukes : That though they shew'd great seeming *tenderness* of Conscience in other smaller matters of *Mint*, *Annise*, and *Cummin* ; Yet they seldom appear'd sensible, or troubl'd at their transgressions in those *greater* matters of the Law.

AND because these people were always making *complaints*, and sad *moans* of their *sins*, without endeavouring to amend ; Those Divines represented to them, that such *complaints* were but *forms*, and a *fashion* that they followed : That sad looks, and whinings, were but a *shew* of *Humility*, and *Repentance :* That if they were sensible of their sins *indeed*, they would use the Grace of God to *overcome* them, till at last they arriv'd at *victory* ; and not still continue in a state of *whimpering*, and *complaining :* That these men cousened themselves into a false opinion of their penitence, and were perswaded, that this was enough without conquest, and true reformation of heart, and life, that their *remaining sins* were but *infirmities*, and the *spots* of Gods children, which were *covered* with Christs Righteousness, and not seen in the Elect : By which they deluded themselves into dangerous presumption, and security. *These* our Divines endeavour'd to destroy, and to pluck away the *fig-leaves* of all their *false*, and *imperfect marks* of *Godliness* ; and shew'd that their usual complaints, were but like the noise of Parrots, without an *inward* sence ; That when men were *only* sensible, and sorry, they were yet but under the *Law*, and a state of *bondage :* That the *Gospel* aims at *Liberty*, and *Victory*, and that we are but just *entred*, and are yet very imperfect, till we have attain'd some considerable measure of *that :* That the *great* mark of *sincerity*, is, to be *proceeding*, and *going forwards*, and towards the *conquest* of sinful habits and inclinations : That we are not to look on *these*, as *failings*, and *infirmities*, and so sit down contented with some tears, and

customary

customary confessions under the power of them: That *Infirmities* are but *single* acts, and *such* too as have not the *will* in them: That God hath afforded us sufficiency of means, and helps enough to subdue all the evils of our natures; and that if we neglect to use those aids, and live at rest under any sinful appetites and passions, we are *Hypocrites*, and our boasted Faith, and spiritualities will signify nothing to us.

Here the Governour made a little stop, and then said; I have run over these things as they offer'd themselves to my mind; I might have set them in a better order, and have added many other particulars, but as to *method*, there is no great need of curiosity in it in such a relation: By the things I have told you, you may gather what was the Genius of those Divines in many *others*, which for brevity I omit.

I said, that though one might collect the opinion of many matters more, by what he had been pleas'd to represent to me; yet there were two things which I had a desire to be informed in further, *viz.* Their Notion of *Free Grace*; and *Justification* by *Faith*.

Their Doctrines about *these*, answer'd He, might in great part be gather'd from some of those principles I have mention'd; but however I shall gratify you with a short account of them:

For **Free Grace**, it was ever in the mouths of the *Ataxites*, and they seem'd to be transported, and ravish'd in the admiration of it: But their notion was very *perverse*, and *false*: For they made it an *arbitrary* kindness, bestow'd upon some very *few* persons, for *no reason* in the world; Not for the sake of any *vertue*, or divine *qualifications*, but only for *meer*, *uncountable will*, and *pleasure*: And said, That God from this *Free Grace* (as they call'd it) chang'd the hearts of the Elect by an *immediate*, *irresistible power*; and *created* Faith, and other Graces in them, in the same way of *omnipotent* operation.

Against these *dangerous* conceits, they taught, That God loves *Vertue*, and *Holiness*, and is no fond *Respecter* of *Persons*: That *those* are the proper objects of his special kindness: That there was a *general* Grace which had *appear'd unto all men*, in the

the *light* of *Reason*, the *Laws* written upon our hearts, and common aids of the *Spirit* : That it's freedom, consisted in it's *universal* diffusion through the world without *let*, or *impediment*;and in the *spontaneity* of it: This said he may seem somewhat a *hard* word ; but I have no plainer to express the fulness of my sense by ; and I never use a *difficult* term,when the thing can be spoke as well in one that is more *easie* and *familiar*. I answer'd, that I understood it very well, and that he meant that Gods Grace was *willing*, and *unforc'd* ; flowing from the *benignity* of his nature ; still communicating it self to all *Subjects* that were *capable* : You apprehend me right, continued the Governour, and *thus* he hath imparted himself to all Mankind : But then added He, There is a *Grace*, more *special*, that concerns *Christians only*, *without us* ; the *declaration* of the *Gospel* : and *within us* ; those *divine vertues* that are wrought by them,and therefore call'd *Graces* : He said, The Gospel perswadeth without force, and God works upon us by it, in a way *proper*, and *sutable* to reasonable Creatures, by our *Reasons*, and our *Interests*, by our *Hopes*, and our *Fears* : assisting all good desires, and endeavours by the operation of his holy Spirit.

This, said he, acts as a *General Cause*, according to the *disposition* of the *Subject* : our *endeavours* would be *weak* and *fruitless* without it ; And yet, It never works *alone* by *meer omnipotence*, without our *endeavours* : They operate in *conjunction*, as the *Sun*, and *moysture* of the earth, and *seminal* principles do in the production of *Plants*, and *Flowers* ; each cause doing what is *proper* to it : The *Dictates* of the *Spirit* are contain'd in the *Gospel*, and the Spirit *enlightneth*, and teacheth by *that*. And so he came to the great Doctrine of

Justification by Faith : Here he call'd to my mind what he had related before concerning *Faith*, and the false notions of it among the *Fanites* : and then said,

Justification is either taken for the *making us just*,or the *dealing* with us as if we were *such* : And that *Faith* is taken as a *single* Grace, *viz.* The *belief* of the *Gospel* ; or *complexly*, as it *comprehends all the rest*, viz. The *whole body* of *Holiness*. Having premis'd which necessary distinctions, He told me, That Faith in the *single* acception of it,was the great *instrument* of the Gospel,

to *make* us *just*; and so *justified* in the *proper*, *Physical* sense; But that as it compriseth the *other Graces*, it justifies in the *forensick*, and less proper sense, *viz.* That God *deals* with the *Faithful*, namely those that are *sincerely obedient* to the *Gospel*, as if they had been *strictly*, and *perfectly just*, and had *fulfill'd* his Laws. By the help of which short, and plain state of the controversie, methought I saw clearly into the whole matter, and was free'd from many perplexities, and confusions in which I was wont to be involv'd.

And being thus inform'd of the principles of those Divines in those chief heads of Doctrine, I had a curiosity to have an account of their mind, concerning the *Form* of *Ecclesiastical Government*, about which there had been so much stir in our *European* parts of Christendom, and therefore intreated him to represent their opinion to me in this subject: To which he answer'd me thus.

The *Antient Form* of *Church Government* in this Island ever since the plantation of Christianity in it, hath been *Episcopal*: But of later years, it was very much hated, and opposed by the *Ataxites*, who set up *new Modells* (every sect it's own fancy) as the only divine Government, and Discipline of Christ; So that the Scriptures were rack'd, and every little word, and point forc'd, and many subtilties of interpretation suborn'd to declare for the beloved imagination: and then the whimsie was voted to be of *divine right*, and the only *Scripture-Government*; and the advancing of it, made no less then the Interest of *Gods Glory*, and the promoting of *Christs Kingdom*. On the other side, the *antient Government* was decry'd as *superstitious*, *Church Tyranny*, *Humane Invention*, a *limb of Antichrist* to be extirpated *root*, and *branch*, by a *thorow*, *Godly Reformation*: In which design (as I told you) they succeeded to the subversion both of the Civil, and Ecclesiastical state: But when they had *destroy'd*, they knew not how to *build*; for they could never agree upon the Platform to be erected in the room of *that* which they had subverted: For every Sect was for setting up it's *own* frame; and every one had a *different* Model from every other; and each was confident, that it's Form was *Christs Institution*, and so by no means to be receded

from, in the least point: The effects of which were endless Animosities, Hatreds, and Struglings against each other, and the greatest rage, and violence of them *altogether*, against the Church of *Bensalem*, and all *Episcopal* constitutions.

Amidst these Bandyings, some *Antifanatick* Divines taught, That there was no reason to think, that any *particular Model* was *prescrib'd* in Scripture, *so*, as to be *unalterable*, and *universal*: That it was necessary *there should be a Government* in the Church; That the Apostles had appointed *General Officers*, and *General Rules*, such as *God's Glory*, *Edification*, *Decency*, *Order*, *avoidance* of *Offence*, and the like; but that it did not appear, they had determined the *particular* Circumstances, and Form: That there was no express *command* of them; and that the plea of *Apostolical example* (could it be made out) would not hold for an *universal Law* to the Church in *all ages*, except where there was some *intrinsick*, necessary goodness in the things practised; or some *annext Precept* to inforce it: That there was neither of these in the present case; and therefore they urged, That the *Form*, and *Circumstances* of *Government*, was to be left to the *Ruling Powers* in the Church, to be order'd by them so as should seem best to suit with the *General Rules*, and *Ends* of Government.

By the means of which Principles, Foundation was lay'd for Peace, and Obedience; and that age was prepared for the reception of the old, Legal establish'd Government, when it should be restored. Concerning *This* those Divines taught,

That it was of all the most *venerable* Form, and greatly to be rever'd for its *Antiquity*, *Universality*, and the *Authority* it had from *Apostolical* Practice, and our *Fundamental* Laws: That on *these*, and other accounts, it was infinitely to be prefer'd, and chosen, before any new-fangled Model, upon the score of which declarations, and discourses, in the *Ataxites* times, great complaint was made by them, among the foolish Zealots of their party, that the *Universities*, were over-run with a *Prelatical* spirit, than which, nothing was more odious in those days: But the prudent men took no notice of their clamours, but went on with the design of propagating such *sober* Principles, as tended to the healing of the Nation. When the

the publick *Government* of the *Church* was restor'd; They most chearfully put themselves under it, and submitted to its *Orders* heartily, upon the belief of its being the most *Primitive*, *Catholick*, *Prudent*, *Legal Government* in the world.

I Have now, said the Governour, past over the particulars, in which you desir'd to be inform'd; much more might have been said of them, but I know your own thoughts will improve these suggestions, which are enough to give light to the main Notions. I returned him my humble acknowlegements for the care, and pains he had taken to satisfy, and inform me in these, and the other heads of those Mens Doctrines. To which he answer'd, That it was a great pleasure, and satisfaction to him if he had given me any content by his relation; and then will'd me that if there were ought in the *Theological* part, that I had any query about, I would propose it freely: For, said he, we have a little time more to spare in talking of this *first General*, if you have any curiosity to be inform'd further of any thing belonging to it. I answer'd that he added to his favours by the liberty of Questioning, he was pleased to allow me, and that I had one thing more to desire a few words of, if he so pleas'd, which was, what *Way* of *Preaching* those Divines followed: This said He, I should have minded my self, and am very glad you remember me of it.

You must know then, continued He, That there was not a greater *diversity* in any thing in *Bensalem* in the Age of which I now speak, than in the *Modes* of *Preaching*; of which amongst other evils, this was *one*, and *not* the *least*, That the people distasted, and contemn'd all the Doctrines, and Instructions that were not deliver'd after their *own* fashion, though otherwise never so seasonable, and wholesome; and inordinately admiring their own men, who spoke in the *Phrase*, and *Mode* that they fancied, they vilified, and despis'd those others, that us'd another method, though it were never so solid, edifying, and useful. And indeed, things were come to that pass in *Bensalem*, that there was scarce any *other* use made of *Preaching*, but to pass judgments upon the Preacher, and the Ser-

mon; which was not only undertaken by the people of Age, and Experience: or by those only of better education and more advanc'd knowledge; But *every* Age, and *every* condition, was thought fit to judge here, every Youth, and Ignorant; every Rustick, and Mechanick would pass absolute, and definitive sentence in this matter. Accordingly the most *empty*, and *fantastical* Preachers were generally the most *popular:* And those that dealt most in jingles, and *chiming* of words, in *Metaphors*, and vulgar *similitudes*, in *Fanatick* Phrases, and *Fanciful* schemes of speech, set off by *pleasing smiles*, and *melting Tones*, by *loudness* and *vehemency*; *These* were sure to be the *taking*, *precious* men, though their discourses were never so trifling, and ridiculous. But the Divines, whom I describe, were no admirers of this ill-gotten, and ill-grounded Fame: They had no ambition to be cry'd up by the common Herd, nor any design to court their applauses: They car'd not for their favour, or kind thoughts *further*, than those afforded advantage and opportunity for the doing of them good. *This* they consider'd as the end of their Ministry, and *this* they made the *Rule* and *Measure* of their *Preaching*; which I shall describe to you under these following Characters.

1. It was *Plain* both in opposition to, First, *Obscurity*, and Secondly, *Affectation*. First, They preach'd no *dark*, or *obscure* notions; For though their thoughts were conversant about the deepest Theories, both in *Philosophy*, and *Religion*, yet they knew, that *such* were not fit for Pulpits, or common hearers They had no design to make *themselves* admir'd by soaring into the Clouds: Their great aim was the edification, and instruction of those to whom they spoke; and therefore they were so far from preaching the *heights* of *speculation*, That they usually avoided (as much as they could) all the *Controversies* of *Religion*, in which the *Essentials* of *Faith*, and *Practice* were not concern'd. And when *either* of *these* call'd for discourse of *Doctrinal* matters, their great care was to be understood. For secondly, They did not involve their discourses in *needless words* of *Art*, or *subtile distinctions*; but spoke in the plainest, and most intelligible Terms: and distinguish'd things in the most easie and familiar manner that the matter

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of discourse would bear. They took this for an *establish'd Rule*, That *unwonted* words were *never* to be us'd, either in Pulpits, or elsewhere, when *common* ones would as fitly represent their meaning: and they always chose *such*, as the custom of speaking had rendred familiar in the Subjects on which they spoke, when *those* were *proper*, and *expressive*. And though many sorts of thoughts, and Subjects cannot be made obvious to the meer vulgar; yet they endeavour'd to render such as were out of the common road of thinking, *clear*, and *plain* to those that are capable of the matters they were to express. Thirdly, They did not trouble their hearers with pretended *Mysteries*: They led them not into the dark places of *Daniel*, and the *Revelations*: nor fed them thence with their own *imaginations* under pretence of *secret*, and *hidden* Truths: No, they taught them from the plain Texts, and Doctrines of the Holy Writings: and gave them the *sincere milk* of the Word without any mixture of *elaborate fancies*, or *mystical* vanities. Fourthly, They slighted, and avoided all *canting Fanatick Phrases*, which were so much the Mode of those times. For They saw, they did but please with their *sound*, without conveying any sense into the minds of those that were so much delighted with them. So that the pretended *plain preaching* of those days, was really *not at all understood*; nor as much as *intelligible*. Therefore instead of such phrases, They us'd the most proper, and natural expressions, and such as most easily opened the mind to the things they taught.

I do but slightly mention these particulars here, said the Governour, because I have spoken of them before in my larger accounts of these men: And so he went to the second thing mentioned, *viz*.

(I.) The plainness of their preaching, in opposition to *Affectation*. Now the usual affectations of Preachers, said he, relate either to *Learning*, *Wit*, or *Zeal*; from all which They were very free. For first, They affected not to ostentate *Learning*, by high-flown expressions, or ends of *Greek*, and *Latine*: They did not stuff their Sermons with numerous, needless *Quotations*; or flourish them with the names of great Authors: ways to be *admired* by the *Vulgar*, and *despised* by

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the *Wiſe* : No, their Learning was not ſhewn in ſuch cheap trifles as theſe, but it abundantly appear'd to the intelligent, by the *judgement* and *ſtrength*, the *reaſon*, and *clearneſs* with which they ſpoke. Secondly, They deſpis'd the ſmall eſſays of appearing *witty* in their Sermons : They us'd no *jingling* of words, nor *inventions* of ſentences, no *odd* fetches of obſervation,or *niceneſs* in *labour'd* periods: They affected no *gayneſs* of *metaphors*, or *prettineſs* of *ſimilitudes* : no tricks to be plaid with the *words* of their *Texts* ; or any other of the *conceited* ſorts of fooling : but ſpoke with *ſeriouſneſs*, and *gravity*, as *became* the Oracles of God ; and ſhew'd their *wit* in the *ſmartneſs*, and edge of the things they deliver'd, without vanity, or trifling. Thirdly, They did not put on *fantaſtical ſhews*, and appearances of *affected zeal* : They us'd no ſet *Tones*, or clamorous *noiſe* ; no *violent*, or *Apiſh* actions : They ſpoke with a well-govern'd *affectionateneſs*, and concernment ; and *ſuch* as ſhew'd they were in *earneſt* : and very ſenſible of the weight of the affairs they were about : But without any thing of *indecency*, or *extravagance*.

And now, ſaid He, after what I have mention'd under this *firſt* Head, I may ſpare my pains of ſpeaking much under the reſt that follow ; and therefore I ſhall be brief on them.

(II.) Thoſe Divines were *methodical* in their preaching: not that they were *nice*, in running their Texts into all the *minute diviſions* of words ; or *formal* in tying themſelves juſt to one order on all Subjects : But they divided their matter into the *ſubſtantial parts* of Diſcourſe ; or reſolv'd it into ſome *main Propoſition* ; and ſo treated of their ſubject in the method that was *natural* to it, and moſt beneficial for the people they were to inſtruct : They went not on in a *cryptick undiſcover'd* order on the one hand, nor did they ſpin out their matter into numerous,coincident particulars on the other : But made their Method very eaſie, and obvious, and their Heads *few*, and *very diſtinct* ; which is helpful both to the *underſtandings*, and *memories* of the hearers.

(III.) Their preaching was *Practical* : For though they taught all the great ſubſtantial principles of Religion ; yet ſtill they directed them to *Practice*, and laid the main ſtreſs on

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that. According to the saying of our Blessed Lord, *If ye know these things, blessed are ye if ye do them.* They taught the true, practical Divinity, without *whimsies*, and *Romantick strains*; and laid down the *Rules* of *Life* that are *practicable*, and *such* as sort with the plain Precepts of the Gospel, and the *condition*, and *possibilities* of *humane* nature: They spoke here, as those that understood the *passions*, *appetites*, and ways of men; and the course that was to be taken, to set them in right order: They did not talk by roat out of Books, or *Enthusiastick experiences*; They did not direct by *Metaphors*, and *Phrases*, and *unpracticable* fancies: But laid down the true, sober, rational, experimental method of action.

(IV.) Their way was *earnest* and *affectionate*: They were not *cold*, or *trifling*, in matters of such vast consequence: They did not *invite* with *indifference*; or *reprove* with *softness*; or *direct* with *negligence* and *unconcernment*: But did all *these*, with a *zeal*, and warmth *sutable* to such weighty occasions. But then, They endeavour'd to excite mens affections, not by their *senses*, and *imaginations only*; not, as I said before, by meer empty *noise*, and *Tones*, and *Gestures*, and *Phrases*, and passionate *out-crys*; but by the *weight* of their *sense*, and the *reason* of their *perswasions*, endeavouring by the *understandings*, to gain the *affections*; and so to work on the *will*, and *resolutions*. *Such* was Their *way* of *Preaching*, on which I might have much enlarg'd, but I give you only the brief Heads.

Here I ask'd him, what entertainment *this* their *preaching* met with in *Bensalem?* He answer'd, That for a long time it was but *coldly* receiv'd by the people, whose imaginations, and humours us'd to be fed upon *Allusions*, and *Phrases*, and *Metaphors*, and *Opinions:* And therefore, they hated *sound Doctrine*, and distasted the *sincere* Word: Their *pallates* were so *vitiated* by the *fantastical* food, to which they had been us'd, that the *substantial* and *wholesome* dyet would not down with them: So that those Divines were not at all *popular* at first, but the People generally ran after the *affected*, *fanciful* men, who entertain'd their itching Ears with *jingles*, and *mysteries*, and *new nothings*.

And after that many of *These* Teachers had forsaken the publick

publick places of Worſhip, and in oppoſition to the Authority of the Church, and Edicts of State, betook themſelves to holes and private corners, The bewitch'd multitude followed them into thoſe places ; Their zeal, and admiration of their own Men being increaſed, and heightned by the prohibition, and reſtraint that was upon them : For they doted on the fancies They taught ; and could not endure ſound ſenſe : But the *Judicious* of all ſorts, entertain'd, and reliſh'd the *ſober, unaffected* preaching of the *Anti-fanaticks* ; And at length alſo, by time, and *their* approbation, and example, moſt of the well-meaning, miſ-led people were recover'd back to the Church of *Benſalem*, and brought to a reliſh and liking of the plain way of Inſtruction.

And now ſaid He, I have done with what concerns the *Theological Genius*, and *Principles* of the men I undertook to deſcribe, 'Tis too late for us at preſent to enter upon their way of *Philoſophy* and *Learning* : of *this* I have given ſome ſhort hints, but I intend you a larger account at our next meeting ; and if you are not tyred already with my diſcourſe, *that* ſhall be to morrow in the afternoon, which I hope I ſhall have at liberty : If you will come hither at that time, you will find me ready to acquaiut you with what is further conſiderable in the Story of thoſe Men.

I thank'd him, with a profound reverence for the ſatisfaction and pleaſure he had afforded me already in his Relation ; and for that further entertainment he was pleas'd to deſign for me ; ſaying, that I never counted time better ſpent than that, which I had the honour to paſs in his Inſtructive Converſation, and on Subjects of ſuch delight, and importance. And ſo I took my leave for that night, and was conducted back by the ſame Meſſenger to my Lodgings.

I Went the next day, at the appointed time, and found the Governour in the same room. After some Reflections on his past Relation, and a few common matters of Discourse (which I need not remember) He told me, He would acquaint me now with some things relating to the Opinion, and Genius of the same Men, in several sorts of *Learning*: of this, said He, you heard somewhat in the beginning, which will shorten this Account: I answer'd, that I did well remember what was told me of their *universal* way of study, and converse with the best Authors, both *Antient*, and *Modern*. I therefore shall omit further discourse of that, said He, and tell you their Opinion (as far as I apprehend it) of the several chief parts of *Philosophy*, and *Learning*. I begin with

LOGICK: As to *this*, They oppos'd not the usual *Systems* of the Schools, as they were *Exercises*, and *Institutions* for *Youth*: But They did not like the *formal Syllogistical* way among maturer Reasoners. They many of them more approv'd of the *Logick* of *Plato*, which teacheth first to *explain* the *Terms* of the Question, and *then* to proceed by orderly Gradations from one proposition to another, till we come to the thing we would prove. A method of Reasoning more *quick*, and *close*, and much less subject to *fallacies*, and *wandrings*, than the way of *Syllogism*.

And to move the propositions from whence a man would infer his conclusion, in the *modest*, *Socratical* way of *Question*; In my judgment, is a very good, and advantageous method. For in *this*, the occasions of passion which are ministred by positive assertions, are taken away, and the Arguer is ingaged no further, then he thinks fit. He may break off when he pleaseth, without prejudice to his credit, which he hath not ingag'd, by undertaking *Dogmatical* proof of any thing: And so disputes may be brought to a short, and fair issue; and extravagant heats may be avoided: for the Arguer may keep himself uningaged, and so see more clearly how to apply his force, and restrain the discourse within the bounds of the subject: whereas in the positive way of disputing by *Syllogism*, there are these contrary disadvantages:

Our Reasons are led a great way about; Mens minds are concern'd for the credit of their assertions,which they positively undertake to prove; Ambiguous and Æquivocal Terms steal in, and insensibly mislead the Reasoners; or distinctions are applyed, which mislead them more; The Disputer takes up one end, and runs away hastily in an opposition of it, perhaps without clearly understanding what it means, and without observing how this new pursuit works him off from the main business; He goes on still, and is still turn'd out of his way more, and more, by him that opposeth: For if he seek occasion to evade the force of the Argument, he may do it well, and salve his credit to, and the deceit shall not easily be perceiv'd. In like manner the opponent for his part, may by Syllogism draw his answerer,though a wary person,almost whether he pleaseth, and impose upon him by *Terms*, and fallacious *Contexture* of words, although he be one that understands consequence well, in *plain* reasoning: And so in this way, men may talk endlessly, but come to no result; and when they are weary of rambling, they may sit down, if they please, but be it when, and where they will, they know not how they came thither, nor what is become of the Question at first debated. This is the usual issue of all *Syllogistical disputes*; But in the *Platonical*, and *Socratical* method, these extravagancies may easily be avoided: which therefore I think to be the better way for *men*, that would find truth,and inform one another: But for the *Youth* that would *try* their wits, and appear subtile in arguing, *Syllogisms* may be proper for their purposes.

For PHYSIOLOGY; They did not sit down in any *System*,or *Body* of *Principles*, as *certain* and *establish'd:* They consider'd the *incomprehensible* wisdom that is in the *works* of *God*;the *difficulties* that occur in the seeming *plainest* things; the *scantness*, of our largest knowledge, and shallowness of our deepest enquiries; of which I spoke before: and therefore gave but *timerous* assent to *any* notions in *Natural Philosophy*: They held no *infallible* Theory *here:* Nor would they allow any speculations, or accounts of Nature to be *more* then *Hypothesis*, and probable conjecture: And *these* they taught were not to be rais'd from *abstracted notions*, and the unassisted operations of the mind, but to be collected leasurely from a careful *observation* of *particulars*;

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So that they thought, with much reason, that the best *Foundation* for *Natural Philosophy* would be a good *History* of *Nature*: This they saw to be very defective in their Time, and that while it remain'd in that imperfection, the knowledge of Nature, and the use of it, would be very scanty, and inconsiderable: But that from its *inlargement*, *more*, and *surer* Light might be expected, and the uses of Life, and Empire of man over the Creatures, might be greatly promoted, and advanc'd. For These ends the Foundation of *Solomon's House*, about that time, was lai'd; and *This* divers of them thought the best design that ever was for *increasing* Natural Knowledge, and the advantages of Humane Life, and infinitely beyond all the *disputing*, *notional* ways, from which nothing could arise, but *dispute*, and *notion*: They consider'd this method of joint endeavours, in such a royal, and noble Assembly, about the *Phænomena*, and effects of Nature, to be the way to make *Philosophy operative*, and *useful*: To take it off from spending it's strength in forming vain *Ideas* of fancy, and wrangling endlesly about *Chimæras*; and to make an *Instrument* of *Action*, and profitable works.

But notwithstanding *this*, They did not wholly slight *General Hypotheses*, and Philosophical conjectures: No, They enquir'd into all the considerable speculations, that are extant, both *Antient*, and *Modern*; though they addicted not themselves to any of the Sects of Philosophers: They *rejected* no probable Opinion with *contempt*; nor *entertain'd* any, with *fondness*: They doated on none, because they were *Antient*; nor did they contemn any, because they were *new*: But receiv'd the likelyhoods of Truth, and Knowledge of *any date*, from *any hand*, or in *any dress*.

Here I ask'd, whether these men were not enemies to *Aristotle*, and *his Philosophy*? He answer'd, That They gave that respect to *Aristotle*, that was due to his *antiquity*, *parts*, and *reputation* in the World: That they read his Books, and thought *as well* of him, as of some others of the *Philosophers*: That they gladly receiv'd any of the Truths, or Probabilities, that he taught: But then, That they did not make his Authority *absolute*; or slavishly submit their judgments to all his Dictates; They did not reckon him *infallible* in Philosophy; no nor yet

free from many actual, great mistakes: They did not prefer his judgment before *all* the *elder* Philosophers, or those of his own time; Nor did they think he was without *Equal*, or *Superiors*, both in Knowledge, and Vertue: They had not that *partial*, *unjust* fondness for him, that the *Moores*, and *Monks*, and some other vain men had, to the prejudice, and disvalue of the Philosophers, that were before Him, from whom he took most of his Notions.

He said, That the *Philosophy* taught in some common Schools, for *Aristotle's*, was a *depravation*, and *corruption* of it: That it was but *Monkery*, and *Moorish* Ignorance formed into *idle*, and *unintelligible whimsies*. That the main Principles, Foundation, and Soul of that Philosophy, *Their first matter*, *Substantial Forms*, and *Qualities*, were meer *Imaginations*, that had no ground either from *Sense*, or *Reason*: That they were utterly unaccountable in themselves; and served no purpose of Knowledge or Life: But rendred all the Philosophy that was built on them *fantastical*, and *useless*.

On the other side he said, That the *Corpuscular Philosophy* was the *eldest*, and most accountable Doctrine: That it was as *antient* as *Natural Philosophy* it self: That it was *applicable* to the *Phænomena* of *Nature*, and that it was very *easie*, and *intelligible*: *This* Theory, added he, those Philosophers preferred much to the *other* of *Qualities* and *Forms*, which in *comparison* is *novel*.

They examined the Philosophy of your *Gassendus*, which restor'd, and amplified the *Atomical* Doctrine: And enquired into the *Hypotheses* of that other great man of your World, *Renatus Descartes*; Both whose works had been brought hither, by our Missionaries. This *latter* they consider'd, and studied much, and in him they found a prodigious wit, and clear thoughts, and a wonderfully ingenious Fabrick of Philosophy, which they thought to be the neatest *Mechanical* System of things that had appear'd in the World; However, they adhered not to it, as the *certain* Account of Nature; nor yielded their assent as to *positive*, and *establish'd* Truth; But entertain'd what they thought *probable*, and *freely dissented* in other matters. Yea some of them, who thought highly of his *Mechanical* wit, and believ'd he had carried matter and motion as far they could go; declar'd earnestly *against* the *compleatness*, and *perfection*

fection of his *Hypotheses*; and learnedly shew'd, That the *Mechanical* Principles *alone* would not salve the *Phænomena*; and that his accounts though they were pretty, and ingenious, were yet short, defective, and unsatisfying; and in some things not very agreeing, and consistent. These judg'd that nothing could be done in *Physiology* without admitting the *Platonical* Λόγοι Σπερματικοὶ, and *Spirit* of *Nature*; and so would have the *Mechanical* Principles aided by the *Vital*: But in these matters, others of them had different thoughts; though all *agreed* in the *modesty*, and *freedom* of judgment and discourse.

As to MORAL PHILOSOPHY, They did by no means approve of the *Contentious*, *Disputing Ethicks*, that turn'd that useful knowledge, into Systems of unprofitable niceties, and notions; and made it (as *Cicero* speaks) to be rather *Ostentatio Scientiæ*, then *Lex Vitæ*: But they founded *theirs*, upon the excellent *knowledge* of *Humane Nature* and *Passions*: Into *these* they inquir'd much, and observ'd the various inclinations, and workings of the Humours, and Appetites of Men; especially they studied *themselves*, and entred into the recesses of their own souls: Nor did they stop here, but formed their knowledge, and observations into solid *Rules* of *Life*, for the commanding of their passions, and bounding their desires, and governing themselves, by the Laws of Vertue and Prudence. *Such* were their *Ethicks*; and their Tempers, and Practices were suitable.

For though they were men of rais'd understandings, and great learning; Yet were they not, in the least, haughty, or conceited; but their behaviour was generally most sweet, and obliging: They cared for no mans *wit*, that wanted *goodness*; and despis'd no mans *weakness*, that had it: They hated the humour of those learned men, who were *stately*, and *imposing*; and dislik'd nothing more then *Ill-nature*: whatever their own was by Birth and Temper, their care was to make it sweet, by Discipline and Usage; and so, exercis'd their Moral Pinciples, and Rules upon themselves: They were no admirers of *Popularity*, but pitied those that were at pains for Air and noise: They followed a sober, vertuous course, without flanting shews, and pretensions; and liv'd in an innocent, even cheerfulness, without rapture, on the one hand, or dejection, on

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the other: They were *free* in their Converſations, and not *ſuperſtitiouſly* ſcrupulous about things that are harmleſs and indifferent. But, ſaid the Governour; I conſider, I need not inſiſt thus on the deſcription of their *Moral* Temper of Spirit; It may be collected in *theſe*, and many other particulars, from what hath been ſaid before: And therefore I now paſs immediately to their

METAPHYSICKS, About which, I muſt firſt tell you, That they had no opinion of *thoſe* of the *Peripatetick* Schools, which conſiſted of *Logical niceties*, and *empty notions*, that ſophiſticated mens reaſons, and inclin'd them to hover in *abſtracted* generals, and to reſt in meer *Terms* of *Art*; to the neglect of the more *material* ratiotinations: *Such Metaphyſicks* were in uſe at that time in the *Univerſities* of *Benſalem*; and therefore out of reſpect to the Statutes of thoſe Seats of *Learning*, They did not profeſſedly endeavour to expoſe thoſe ſtudies: No, They were againſt rude and violent *Innovations*; But yet as they had opportunity, they prudently adviſ'd ſuch Youth as they knew, to take care that they did not *dwell* on thoſe *Aery Notions*; or reckon of them, as any part of that *ſtanding Knowledge*, which they were to uſe, through the courſe of their future lives: They allowed them for *exerciſe*, but caution'd againſt the reception of them, as *Principles* of *Truth*, and *Science*.

Here I ask'd, whether Thoſe men were againſt *all Metaphyſicks*? or *what ſort* they allowed? He made anſwer; That They were not againſt *all*. But that

1. Some of them counted, *The explication* of *General Terms*, and *notions* of things to appertain to Metaphyſicks; and *this* they reckon'd to be moſt neceſſary, and uſeful for the avoiding confuſions, and miſtakes in reaſoning: So that they never entred into any Controverſie, or Enquiry, without ſtripping the words, and notions, they were to treat of, from all *fantaſtry*, and *borrowed* ſenſes, and fixing them in their natural, and genuine acception: Knowing, that moſt diſputes and errours in reaſoning ariſe from *miſtakes* of *ſimple Terms*.

2. But then *others* of Them, who as highly eſteem'd of *this* courſe, judg'd it to belong to *Logick*, and that it was not to be brought under *this* ſcience, the only object of which, *They*

made

made the *Spiritual*, and *Immaterial* World: And in this sort of *Metaphysicks*, the *Science* of *Spirits*, they were not all of one Opinion; For some were for the Doctrine of *Plato*, making Spirits, *extended*, *penetrable*, *indiscerpible*, *self-motive* substances: Whereas *others* thought with *Descartes*, that *extention*, *motion*, and the like Attributes, belong'd only to *Bodies*, and had nothing to do with *Spirits*, which could be *defin'd* by nothing, but *Thinking*, and the *Modes* of it. But this difference in Opinion produc'd no rudeness, or heats of opposition, only it gave exercise some times, to their wits, in their private *Philosophical* entertainments.

As for the Doctrine of the common Schools of *Tota in Toto*— Both sides esteem'd it *contradictious*, and *vain*: And knew, that this was one great occasion of the *Sadducism*, and disbelief of *Spiritual Beings*, which was so much the Mode of that age.

I said, That I had heard something of both these Doctrines; And that each of them seem'd to me, to contain opinions that were very *strange*; adding, that I desir'd to know, whether those Gentlemen entertain'd the conceits, that the *old Platonists*, and *our Cartesians* did, in *their Hypotheses*? He ask'd me *what notions* I meant; I answer'd, That the *Platonists* held, There was an *Anima Mundi*; and the *Præexistence* of *particular* Souls, things seemingly very uncouth, and absurd. And the *Cartesians*, on the *other* side, taught, That all things were *Mechanical*, but *Humane thoughts*, and operations; and that the *Beasts* were but meer *Automata*, and *insensible machins*; which, said I, seem very odd, and ridiculous fancies.

As to these Opinions replyed he, They had different thoughts, as other Philosophers have; *Some* of them supposing that the *Platonical* Opinions are very fit to be admitted, to give assistance to the *Mechanical* Principles; which they think very defective of themselves. And *Others* judging, That the *Cartesian Hypotheses* are *probable*, and *Mechanism* sufficient to account for the *Phænomena*; and that there is no *need* of introducing so hopeless, and obscure a Principle, as the *Soul* of the World.

In the Matters, and *Mysteries* of *Providence*, They also take several ways of Opinion: But then, the dissenters to either judgment, do not condemn the opposite, as ridiculous, and absurd;

absurd: Knowing, That there is a great *appearance* of truth in the *contrary* Doctrine; and *no certainty* in *that*, which they approve most.

As to the Opinion of *Præexistence* of *souls*: It hath said He, been the Doctrine of many of the *wisest* men of *eldest* times, both *Gentiles*, *Jews*, and *Christians*, and the almost general belief of the old *Eastern* World: It contains no opposition to any Article of Faith, and some believe, It will give a very plausible, and fair *solution* of the main, and most *difficult* things in *Providence*: On which accounts it should not, I think, be *rashly*, condemn'd as *absurd*; but may very well deserve to be *heard*, and is very worthy to be examin'd: Though, added He, I affirm nothing *positively* of it; And I suppose many of the persons I describe, were dispos'd to *like* thoughts with *these*, in reference to that *Hypothesis*.

I pray'd him to acquaint me with their Opinion of the MATHEMATICKS? He Answered, That They were great valuers of *those Sciences*; which they accounted excellent *preparatives*, and helps to *all sorts* of Knowledge, and very serviceable *particularly* in *this*, That they us'd the mind to a *close* way of *reasoning*, and were a good Antidote against the *confus'd*, and *wandring* humour of *Disputers*: For which reason, Some of them thought, it would be very well, If they were us'd as the *first Institutions* of the *Academick* Youth; judging, that *these* Sciences would *exercise* the *wit*, as *much*, as the usual *Logicks*, at least; and beget a much *better habit* in the mind, then those *contentious* studies.

Besides This, said He, I cannot at present think of any thing *more*, *considerable*, concerning their inclinations, in *meer Humane Knowledge*: But as to their way of *Learning*, as *Divines*, something may be added,

And with Relation to *this* I may say,

1. That they are not much taken with the *School-men*, but rather think, That those *subtile*, and *Angelical* Doctors have done Religion no small disservice, by the numerous *disputes*, *niceties*, and *distinctions* they have rais'd, about things, otherwise *plain* enough: By which, The *natural*, and *genuine* conceptions of mens minds are perverted, and the clear light of Reason,

Reason, and Truth intercepted, and obscur'd: And they judg'd, There was less cause in the *latter* ages to reckon of *School-Divinity*, since the *Peripatetick Philosophy*, on which it was grounded, grew every where into discredit: So that they thought it not *safe*, to have Religion concern'd, in *that*, which did not *truly* help it; and which was not *now able* to help it self.

2. They did not admire many of the *Commentators*, and *Expositors* of the Scripture: For though they *praised* those Industrious Men for their *Zeal*, and *Devotion* to the *holy* Writings: Yet they did not think much due to divers of their performances. For a considering Man could not but observe, how they kept voluminous stir about the plain Places, which they never left, till they had made *Obscure*; while they let the *difficult* ones pass without notice. Besides which, the manifold *Impertinencies*, *Phancies*, *Disputes*, *Contradictions* to one another, and the Scriptures, which were observable among those Writers, rendred divers of them of mean account in the Judgment of those Men. However they had a just esteem of many of the *Critical Interpreters*, and *particularly* of those famous Lights of your end the World, well known to us also, *Grotius*, and *Hammondus*, whose learned *works* and *expositions* they beheld with great respect, and veneration.

(3.) As for the *ANTIENT FATHERS*; They valued those greatly of the *first* 300, yea 500 years, who lived before Christianity was so much mingled with Opinions, and corrupted by disputes; and the various devices of Men: *Their* works they reverenced, because there was much holiness, in those venerable persons, and much simplicity in their writings, and among others, there are two particular reasons, why they had *those sages* in so much esteem.

(1.) Because the Controversies they handle, are mostly such, as Concern the *main* things of Religion, in opposition to the *Jews*, *Heathens*, and some gross *Hereticks*, who undermined the Foundations of *Faith*, and *Life*: *These* were undertakings worthy the zeal, and pains of those holy Ancients; who did not multiply *unnecessary* quarrels, and occasions of dispute; or make *speculative* opinions *Articles* of *Faith*, and *fundamentals* of *Religion*, and presently denounce *thick Anathema's* against all, that differed from them in *lesser* matters; But they

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ſtuck firmly to the *few*, *plain* things, and placed their Religion principally in a *holy Life*, and lived in *Charity*, and *Love*, and frequent *communion*: *Those* days, and thoſe Men the *Antifanites* celebrated much, and prayed, and endeavour'd for the *Reſtauration* of *Chriſtianity* to *that Primitive Temper*:

(2.) They reverenc'd *thoſe Fathers*, becauſe living nearer the times of the Apoſtles, they had *more* advantages to know their Doctrines, and Government, and Uſages, than the ages at a greater remove have: on which Accounts, They attend *more* to *their practiſes* and *opinions*, then to thoſe of *ſucceeding* times, when *pride*, *ambition*, *covetouſneſs*, and *diſputes* had lead Men aſide into the various ways of *phancy*, and *faction*: Theſe then they accounted excellent *witneſſes* of *Chriſtianity*, and our beſt *Interpreters* of it's *Doctrines*, and *Conſtitutions*; though they did not make them *Judges* in affairs of *Faith*, and *Religion*; or reckon all to be *infallible*, that they *did*, or *ſaid*. Thus were they diſpos'd towards the *firſt Fathers*.

For *Thoſe* of the *following* ages They eſteem'd their piety, and zeal; and praiſed God for the good they did in their Generations; and gave all due acknowledgments to their pious endeavours; and were ready to imbrace their inſtructions in the ways of Godlineſs, and Vertue; and willing to receive the evidence of any truth from them: But They did not *equal* them in their eſtimation with the *Elder Fathers*, nor *ſuperſtitiouſly* doat on *all* their ſayings; nor take them for the *beſt Guides* in *all* the Doctrines of Religion.

For *thoſe Fathers* lived in the diſputing ages, when pride, and intereſt and prevailing faction had eſpouſed *opinions*, as *eſſentials* of *Faith*, and made Men quarrel, and divide, and break the peace of the Church, of the World, for *Trifles*; They much differ'd from one another; and ſome of them, at times, from themſelves; and many of them, in *ſome things*, from *Scripture*, and *Reaſon*, and *more primitive* Antiquity: They diſputed often with much eagerneſs; and were very angry with each other about things of no great moment; and vented unſeemly paſſions, and were too often very impatient of Contradiction, and different judgment. They, ſome of them ſpoke haſtily, and determined too ſoon in a heat, againſt *one kind of oppoſites*; and then, forgot at another time, and affirm'd

affirm'd the quite contrary, against an *other sort* of *Adversaries*: They made too much of their opinions, and were many times too severe to harmless dissenters. *These*, and divers more such, were the weaknesses of *many*, of those Reverend Men: which I do not mention, said He, to detract from their worth in *other* things, or to lessen their just honour and valuation: but to shew you some of the things, which, 'tis like, were the reasons, why those Divines did not esteem of the *latter*, as they did of the *most ancient Fathers*.

These, and such like, I say, I judg might be the reasons: But They themselves were very cautious in saying any thing that might look like detractions, or disesteem of those venerable Persons: They contented themselves to omit poring on such of them, as They thought there might be less cause to admire, or less need to study; without discovering their nakedness, and imperfections; or discouraging others from following their inclinations to converse with them. Yea, they neglected not to read them themselves, as they had time, and occasion: But then, they read them not with design to gather *fine sentences* to adorn their discourses, nor to gain *Authorities* in speculative matters, to confirm their opinions: But to *improve* their *reasons*, to get *direction* from their *pious councels*, and to inform themselves of the *Genius*, *Principles*, and *Customes* of the Times, in which they successively lived: That they might not be imposed on by the pretenders to *Antiquity*, who endeavour'd to gain *reverence* to their *Innovations*, by pretence of *ancient* usage: And this is enough of their *Inclinations* towards the *Fathers*.

I have now, said He, but a word to speak more, under this Head, and that shall be briefly;

(4.) About their opinion of the *Rabinical Learning*: Among the Authors of *this* sort, diverse of them were very conversant: not out of any great esteem of the *Men*, or their *Learning*; but from a desire to acquaint themselves by Them, with the *Doctrines*, *Terms* of speech, and *Customes* of the Jews, in order to their better understanding of the *Scriptures*, and the *defence* of *Christianity*, against those enemies of the Cross. On these accounts, they judg'd the reading those Writers, notwithstanding the trash, and vanity, with which their Books

were loaded, to be very useful for a Divine, and like to be of more behoof to him, than all the tedious volumes of the *Schoolmen:* And some thought, it would not be amiss, if the *Rabbins* succeeded in those places, which those *other Doctors*, were leaving *vacant*.

And now, said He, I have also given you a Taste of the Genius, and Humour of those Divines in some *chief* parts of *Learning:* And though I have mentioned only *some particular* sorts, yet I do not thereby exclude them from their share in the *Languages*, *History*, and other kinds of knowledg; which I have omitted in this account, only, because their sence of them, for the most part, was *common* with the judgment, and opinion of other learned Men.

I have represented to you their Genius and endeavours, not with design (as I intimated before) to exalt, and magnifie *them* above the other Divines of *Bensalem*, but to shew how the Providence of God over-rul'd those evil times, in which those Men were bred, and to raise a good and generous Spirit amid the extravagances of an unhappy age: and I have thus particularly described their Principles, and Practices, not to exclude other worthy, and Reverend Men (with which, thanks be to God, this Church abounds) from the share of acknowments that are due to their pious, and excellent Labours, but because those Persons are better known to me, than any others of our Clergy.

At this Period of his discourse, a Servant came in, and with low reverence, acquainted the Governor that some Persons of quality were come to speak with him. Upon which, he rising up, told me, He was sorry for this interruption, but hoped ere long, to have the freedom of another opportunity of Conversing with me.

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